

UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF WISCONSIN

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WISCONSIN ALUMNI RESEARCH FOUNDATION,

Plaintiff,

-vs-

Case No. 14-CV-62-WMC

APPLE, INC.,

Madison, Wisconsin

October 5, 2015

Defendant.

8:10 a.m.

* * * * *

STENOGRAPHIC TRANSCRIPT OF FIRST DAY OF JURY TRIAL
HELD BEFORE CHIEF JUDGE WILLIAM M. CONLEY, and a jury

APPEARANCES:

For the Plaintiff:

Irell & Manella LLP

BY: MORGAN CHU

GARY FRISCHLING

JASON SHEASBY

ALAN HEINRICH

AMY PROCTOR

CHRISTOPHER ABERNETHY

TONY ROWLES

1800 Avenue of the Stars, Ste. 900

Los Angeles, California 90067

Godfrey & Kahn, S.C.

BY: JENNIFER GREGOR

One East Main Street, Ste. 500

Madison, Wisconsin 53703

Also appearing: Joshua Oppenhuis-Technology consultant
Carl Gulbrandsen Managing Director-WARF

Lynette Swenson RMR, CRR, CBC

U.S. District Court Federal Reporter

United States District Court

120 North Henry Street, Rm. 520

Madison, Wisconsin 53703

(608)255-3821

1 For the Defendant:
 2 Wilmer Cutler Pickering Hale & Dorr
 3 BY: WILLIAM LEE
 4 JORDAN HIRSCH
 5 LAUREN FLETCHER
 6 60 State Street
 7 Boston, Massachusetts 02109

8 Wilmer Cutler Pickering Hale & Door
 9 BY: DAVID MARCUS
 10 JAMES DOWD
 11 ANDREA JEFFRIES
 12 DEREK GOSMA
 13 350 South Grand Avenue, Ste. 2100
 14 Los Angeles, California 90071

15 Cetra Law Firm
 16 BY: CATHERINE CETRANGOLO
 17 20 North Carroll Street
 18 Madison, Wisconsin 53703

19 Also appearing: David Sayres - Technology consultant
 20 Gerard Williams - Apple engineer
 21 Iain Cunningham-Director of Litigation

22 * * * * *

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(Proceedings called to order.)

THE CLERK: Case Number 14-CV-62. *Wisconsin Alumni Research Foundation v. Apple, Inc.* called for conference. May we have the appearances, please.

MR. CHU: Good morning, Your Honor. On behalf of WARF: Morgan Chu, Gary Frischling, Jason Sheasby, and Alan Heinrich.

1 THE COURT: Very good. I'll hear then
2 appearances for Apple.

3 MR. LEE: Good afternoon, Your Honor. On
4 behalf of Apple: Bill Lee, David Marcus, Jim Dowd,
5 Cathy Cetrangolo. Thank you.

6 THE COURT: Thank you. I'll just emphasize,
7 although given the cast of characters, it's probably
8 obvious we won't be doing any kind of appearance when
9 the jury panel comes in. We will remain seated. They
10 will be brought in. The first 14 will be seated in the
11 box. The remainder of the jury panel will be in the
12 left corner. I appreciate the parties keeping that
13 open. And then we will proceed with the voir dire.

14 During the voir dire, you will introduce
15 yourselves, as you may recall in the materials, which
16 means you introduce any counsel that will appear during
17 the course of the trial. And then I'll have you
18 introduce your client. You can simply say -- if you
19 have one sentence -- hopefully by now we know what would
20 be noncontroversial -- one sentence as to who your
21 client is, and if you have a client representative,
22 stand and introduce them. And then we will proceed with
23 the voir dire. And that's all laid out in the current
24 form of the voir dire.

25 I will ask initially any other issues with respect

1 to voir dire. I know the last version was provided to
2 both sides last night, but I'll hear from WARF if there
3 are any remaining issues.

4 MR. CHU: None, Your Honor.

5 THE COURT: All right. And so we're clear,
6 Mr. Chu, you're free to speak at your mic there. I know
7 it sometimes is the practice of counsel to stand at the
8 podium, and if that's your preference, you're free to do
9 it. But don't feel as though for purposes of the record
10 -- you're welcome to stand or sit as you feel free, but
11 you don't have to use this particular mic. All the mics
12 are live, unless you turned them off yourself, which may
13 be appropriate in a certain circumstance. But in any
14 event, if you want to just stand at counsel table,
15 that's fine.

16 Let me ask the same question of Apple. Any further
17 issues with voir dire?

18 MR. LEE: None, Your Honor.

19 THE COURT: All right. I'm going to ask the
20 same question, just so we don't have -- we've got lots
21 of surprises. The parties are creative in their
22 submissions. But just for those that are coming up
23 immediately, any issues for either party with respect to
24 the introduction instructions at this point? I'll hear
25 first from WARF.

1 MR. CHU: None, Your Honor.

2 THE COURT: Any for Apple?

3 MR. LEE: No, Your Honor.

4 THE COURT: All right. Good. As far as
5 openings are concerned, I'm only aware of one issue, but
6 I'll hear from the parties if there are others. There
7 seems to be a concern as to whether Apple can actually
8 state when it became aware of the '752 patent in
9 opening. I view this as one of those early examples of
10 both sides hoping the Court is hypertechnical. It's not
11 my inclination at trial. I view the basic story --
12 whether copying is in or not for liability, that's a
13 basic part of the story, and I'm going to allow Apple to
14 say when they became aware of the patent. Obviously
15 they're not going to be able to argue that it has any
16 significance for purposes of infringement, but it's part
17 of the basic story of the case and I think it's
18 overreaching for either side to think that they can
19 leave out the rough story here.

20 In fact, particularly with respect to this, even if
21 WARF is eliminating copying and it's not -- doesn't --
22 therefore the exact date of knowledge by Apple with
23 respect to the patent-in-suit may not bear directly on
24 copying, it's still sort of a background fact, and to
25 that extent, I think the jury is entitled to know it.

1 So that's coming in.

2 I believe -- I'm going to hold on closing
3 instructions and verdict form at this point. The
4 parties have provided ample additional information for
5 the Court to think about.

6 There was a concern raised by Apple with respect to
7 what they characterize as counter counterdesignations.
8 I've appreciated the efforts by the parties to work
9 together, but once you've given me the designations with
10 the counterdesignations, if either side thinks they're
11 entitled to something more -- I guess in this case it
12 really would be WARF thinks it's entitled to something
13 more -- they should work that out before it's submitted
14 to the Court. But you don't get to wait until the Court
15 rules on the designations and counterdesignations. In
16 fact, I've never seen that tried before. Again, I think
17 it's -- I understand everyone is working on the fly and
18 you have enough people to massage things, but there has
19 to be a practical cutoff. We're in trial now, so I
20 think Apple's motion is well-founded, as I understand
21 it.

22 When you submit it to the Court three days before
23 its introduction, that's it. I'm going to rule on it
24 and that's the end of the story. So
25 counterdesignations, whatever they may entail, are out

1 except to the extent that either side is welcome to
2 argue that in terms of a counterdesignation, that
3 something additional now is required because of that
4 counterdesignation. But that should be done in the
5 submission to the Court the three days before its
6 submission.

7 Since it was WARF who tried to propose it, any
8 clarification you need from that?

9 MR. SHEASBY: Your Honor, there's no
10 clarification. I will say that in light of that, there
11 are some significant objections to their
12 counterdesignations that we've made to them. In other
13 words, I understand we can't respond to their
14 counterdesignations, but we think their
15 counterdesignations are not proper designations. They
16 go beyond the scope --

17 THE COURT: Because they're incomplete?

18 MR. SHEASBY: Because they're incomplete or
19 because they go beyond the scope.

20 THE COURT: Well, beyond the scope doesn't
21 necessarily apply. I'm not -- if it's not relevant to
22 that phase of the trial that's fine. But if it's -- now
23 that you're going to use that witness, they are free to
24 ask questions that are relevant of that witness. So if
25 the objection is beyond the scope, that's not going to

1 be sustained.

2 MR. SHEASBY: Okay.

3 THE COURT: I'm not sure what that would mean
4 either.

5 MR. SHEASBY: So there are a small number of
6 incomplete objections that we --

7 THE COURT: And those I will address then. If
8 they're in the materials to the Court, I will address
9 them.

10 MR. CHU: Your Honor, may I ask a question for
11 clarification for the future?

12 THE COURT: Certainly. Yeah.

13 MR. CHU: So let's suppose one party designates
14 on subjects A, B, and C. The other party designates on
15 A, B, C, and D, and the first party then says well, I
16 also want to designate on D. We could call that a
17 counterdesignation. What I heard the Court say is get
18 all that in on time so you can rule on everything at
19 once three days before.

20 THE COURT: That's correct.

21 MR. CHU: Thank you.

22 THE COURT: I would view that as incomplete.
23 If you want to call that a counter counterdesignation, I
24 don't care about the vocabulary as long as it's all
25 given to me at the same time. We're not going to do a

1 rolling designation, as I've already indicated with
2 respect to some efforts to supplement.

3 All right. Any questions by Apple with respect to
4 the Court's ruling?

5 MR. LEE: None, Your Honor.

6 THE COURT: Okay. I understand that we will
7 need to take up some issues that the parties have not
8 been able to agree on with respect to sealing of
9 exhibits and we'll do that in a moment. I take it there
10 are no other issues for opening except for
11 confidentiality. The parties have exchanged their
12 demonstratives or exhibits they intend to introduce in
13 opening and that we don't need to address that.

14 As you can tell, I'm just trying to clear up what
15 it is that's still at issue with respect to that period
16 before lunch. Since -- I'll wait for Apple. Any
17 further with respect to openings?

18 MR. CHU: May I have just a moment, Your Honor?

19 THE COURT: All right. Let me hear then from
20 Apple.

21 MR. LEE: Your Honor, the answer is yes, there
22 are a number of objections that are opening slides that
23 we met and conferred on last evening that have been
24 resolved. And I would also say --

25 THE COURT: But there remain some for the Court

1 to decide.

2 MR. LEE: Yes.

3 THE COURT: Very good.

4 MR. LEE: I think, Your Honor, the sealing
5 issues for the opening, in terms of what either party is
6 showing, we don't need to address those now. I think
7 the confidential issue for the slides is not --

8 THE COURT: I know I said I would come to those
9 because it seemed to me it's appropriate now, but I want
10 to take up the opening slides first. Does WARF have its
11 own sets of issues?

12 MR. HEINRICH: We do, Your Honor. Alan
13 Heinrich. So we have just a couple issues. First --

14 THE COURT: Is there any chance we could call
15 these up as we talk about them?

16 MR. HEINRICH: Sure. So if we go to Apple's
17 opening, there is a set of slides -- I'll just give one
18 example. But you can call up Slide DDX 1-48. It's
19 Slide 48 DDX-1.

20 THE COURT: My monitor is still coming on.
21 There we go. All right. And your objection is?

22 MR. HEINRICH: So this is a series of slides
23 that are from Apple's damages expert, Dr. Hitt, and
24 Dr. Hitt -- that's the wrong -- I'm sorry, it's Slide
25 48. That's 51. So this is one example. It's actually

1 from Dr. Hitt's report at page 81, and this is part of a
2 series of photos and diagrams that he's included to
3 argue that the LSD predictor is a very tiny part of
4 Apple's products for purposes of his apportioning
5 analysis. And we think it's inappropriate for Apple to
6 be making these arguments about --

7 THE COURT: All right. Well, I understand --
8 let me ask Apple's counsel how is it you intend to use
9 this?

10 MR. LEE: Your Honor, this would be
11 Mr. Williams, who actually designed the chip, is going
12 to describe the Apple -- if Your Honor turns back to
13 I-44, if we go back to I-44, he's just basically -- he's
14 going to say here is the product that's been accused of
15 infringing. Then the jury is going to hear about the
16 system-on-a-chip; identify where it is. The jury is
17 going to hear about, as Your Honor knows, the CPU. The
18 next slide just shows where it is. And then within the
19 CPU, there is the dependency predictor, which is in the
20 NBR. So the slide that Mr. Heinrich has showed Your
21 Honor, I-48, if we could have that, just identifies
22 where that is.

23 And then I-50 shows within that blocked diagram
24 where the dependency predictor is. This is just showing
25 where it is within the product.

1 THE COURT: I'll hear really briefly.

2 MR. HEINRICH: Just to be clear, if that's what
3 they're going to be using this for --

4 THE COURT: Again, I'd encourage the parties --
5 I know that everyone is on the fly, but that seems like
6 the kind of question that could be asked outside the
7 presence of the Court. But I'm going to allow it for
8 that limited purpose. I understand your concern.
9 Perhaps if there's any more like that, you can clarify
10 and we can take it up just before openings. If you have
11 some that are more substantive --

12 MR. HEINRICH: I would like clarification that
13 Slides 52 through 54 won't be used. These were slides
14 on --

15 THE COURT: You know what? We're not doing
16 this. We're not having a discussion. We're going to
17 have a break before we start the voir dire at 9 a.m. and
18 I would encourage the parties to discuss. If your
19 concern is that it could be misused, then clear that up.
20 Let me know when I come back in or after voir dire. But
21 if you just have a fear that the other side is not going
22 to use an exhibit properly in opening, clarify that with
23 each other.

24 Was there anything else?

25 MR. HEINRICH: That's all, Your Honor.

1 THE COURT: All right. What about for Apple?

2 MR. LEE: Your Honor, if we could bring up --
3 there are slides -- maybe I could just address a couple
4 and that would give us enough guidance. But if I could
5 start with their slide --

6 THE COURT: You need to be on defendant's
7 slide? Who's calling it up? I'm happy to have either
8 side. I've got plaintiff now. Do I need defendant?

9 MR. LEE: I actually have a hard copy if it
10 would help, Your Honor.

11 THE COURT: Why don't we call it up. It will
12 show me roughly.

13 MR. LEE: Can we bring up WARF's opening
14 slides? And could I have Slide 4.

15 THE COURT: I'm happy if WARF can do that. I
16 apologize. The most important people in the room become
17 the IT people and I don't know either name at this
18 point.

19 I can come to you. There you are. Now, we may
20 have our first tech problem. I've got your laptop
21 activated.

22 MS. CETRANGOLO: Your Honor, I think it's best,
23 the way that they have this set up, these two are going
24 to control it themselves.

25 THE COURT: All right. So I'll just leave it

1 on plaintiff's laptop and you're working through them?

2 That's fine. It's good to know.

3 Why don't I let you explain your concern.

4 MR. LEE: This is open -- and this goes to your
5 ruling on MIL 14 about WARF's business model and what
6 they do and what doors have been opened. But it also
7 goes, Your Honor, if you'll recall that we agreed that
8 argument about what happened with stem cells and WARF
9 would not go in.

10 This is a picture of Mr. Carl Gulbrandsen with
11 President Bush receiving an award for vitamin D, not for
12 the '752 patent. If we're going to keep out things --

13 THE COURT: I understand the concern. Let me
14 hear from WARF as to why you think this is appropriate
15 for opening.

16 MR. CHU: As long as the same rule is applied
17 throughout the trial, we're happy not to use the slide,
18 Your Honor.

19 THE COURT: I don't know what that means, the
20 same rule. I've made clear there's a limited amount
21 that either side is going to be saying about the
22 background of their company. I can see where this is
23 potentially prejudicial, particularly given that we're
24 here in Madison, Wisconsin. But similarly Apple isn't
25 going to be able to stand up and tell their amazing

1 corporate story, certainly not in infringement.

2 So with that said -- if that's what you mean by
3 both ways, that will be the case, then we should leave
4 this slide out in opening.

5 MR. CHU: We will, Your Honor.

6 THE COURT: All right.

7 MR. LEE: Could I have Slide No. 2, please.
8 And Your Honor, this just -- our concern is, as Your
9 Honor said that, what the government wants and what the
10 law provides, what the patent --

11 THE COURT: I'm just going to -- *disclose your*
12 *amazing inventions*. Did you get that from a document
13 from the U.S. Patent Office?

14 MR. CHU: Not the *amazing* part, Your Honor.

15 THE COURT: I don't recall seeing it either.

16 MR. CHU: That's fine.

17 THE COURT: In its current form, I'm not going
18 to allow this slide.

19 MR. CHU: Okay.

20 THE COURT: If you want to tone it down and
21 explain just roughly what the U.S. Patent Office is
22 about, I might consider it. But in its current form
23 it's out.

24 MR. CHU: Very well.

25 MR. LEE: Your Honor, we discussed these, so we

1 have some guidance from Your Honor now. Maybe at the
2 break we can talk about the remaining issues.

3 THE COURT: That would be great. I'd
4 appreciate it. And if there are any other issues, as I
5 say, we will definitely take a break before openings and
6 we can take up any last-minute issues at that time. If
7 not, before we have our jury panel coming in.

8 Let me do this then: I'll hear from both sides if
9 there are issues you think are profitably taken up. The
10 other two that I'm inclined to consider are at least to
11 get a sense of where your confidentiality dispute
12 remains and to take up the objections to exhibits, some
13 seven Apple exhibits which are anticipated being used
14 during the liability phase.

15 So let me hear first from Apple as to -- I'm sorry,
16 from WARF as to your preference.

17 MR. HEINRICH: So we do have one additional
18 issue, Your Honor. Just clarification on when the issue
19 of WARF's entitlement to a claim for damages based on
20 the Samsung --

21 THE COURT: Oh, thank you. That was on my
22 list. I view that as damages. It's extraneous to the
23 principal issues on liability. We're going to go
24 forward to a damage phase. I know technically -- and
25 again, this is where I think we have to be practical

1 once we get to trial.

2 Technically it's certainly a liability question
3 with respect to those products, but it really isn't
4 material to the jury deciding anything until we get to
5 damages. You're either going to win on liability or
6 you're not, unless there was some argument, and I can't
7 imagine that Apple would make it, that there's a chance
8 they could win just on that product. That's really
9 WARF's argument, not Apple's. So I don't understand the
10 need to address it in liability.

11 MR. LEE: Actually, Your Honor, that's
12 precisely the concern what --

13 THE COURT: Then I'm totally missing the thrust
14 of the argument.

15 MR. LEE: And actually, we may have been
16 unclear about this. So if I just --

17 THE COURT: I understand what your right to --
18 WARF's right to recover those sales might be and what
19 needs to be proven and that that is a question are they
20 liable or not. I'm not missing that point. But I'm
21 missing why that needs to be taken up in the liability
22 phase.

23 MR. LEE: For this reason, Your Honor: There
24 are two separate issues. And Your Honor is correct
25 about the one you've just identified, which is the

1 vicarious liability.

2 THE COURT: Yeah.

3 MR. LEE: The product, the thing that leaves
4 the Samsung facility and goes overseas, is a different
5 thing than the A7 chip that's imported in the phone and
6 which is the basis for the direct infringement claim.
7 So --

8 THE COURT: There's got to be a so what there
9 somewhere. You're about to tell me. So what?

10 MR. LEE: Because it doesn't infringe. It's
11 not --

12 THE COURT: So what?

13 MR. LEE: Well, Your Honor --

14 THE COURT: I mean let me ask it a different
15 way: Is WARF going to argue that they get to go forward
16 with a damage claim if they lose on liability with
17 respect to every other product?

18 MR. HEINRICH: Absolutely not, Your Honor.

19 THE COURT: So I've lost you.

20 MR. LEE: Okay. I apologize. There are two
21 sets of products here.

22 THE COURT: I understand that. No, but leave
23 that aside. You win. They never even hear about the
24 Samsung overseas product as sold unless they win on
25 their general liability case. Why is Apple arguing,

1 other than it sounds good strategically for you to be
2 able to tell the jury about it, why are you arguing for
3 an additional product being liable?

4 MR. LEE: Your Honor, because the jury could
5 find, we hope not, but they could find that the A7 chips
6 that are imported in the phone infringe, but the Samsung
7 wafers do not. And so this is -- I understand, as we
8 said we understand --

9 THE COURT: Yes, they could decide that. And
10 they will decide that in the damage phase of the trial.

11 MR. LEE: It then requires, Your Honor, both of
12 us to recall our infringement experts to testify about
13 the Samsung wafers and why they infringe.

14 THE COURT: Yes, it does.

15 MR. LEE: Right. And that's the problem for
16 us.

17 THE COURT: Why is that a problem?

18 MR. LEE: Because Your Honor, we think that if
19 they're deciding the question of liability --

20 THE COURT: I just told you I disagree -- I
21 mean I really am having trouble understanding why it's
22 so crucial. This jury will understand that they can
23 only award as to Samsung if they find a violation
24 specific to Samsung. If you told me all our experts are
25 committed to be on a flight by the end of the day on

1 Thursday, but that's not what you're saying.

2 You're saying something -- I understand technically
3 what you're saying, but you're not telling me why you're
4 prejudiced.

5 MR. LEE: Your Honor, I'm not -- there's
6 nothing we can say beyond what we've said on it, so...

7 THE COURT: All right. Then --

8 MR. LEE: But I think just so we all
9 understand, I think Your Honor's -- one of my concerns
10 was that the liability experts will have to come back,
11 Dr. Conte, Dr. August.

12 THE COURT: And WARF is willing to live with
13 that, to the extent it's true. I don't know if it is or
14 not. But I haven't heard why Apple isn't willing to
15 live with that.

16 MR. LEE: Could I ask Mr. Dowd?

17 THE COURT: Very briefly. Mr. Dowd.

18 MR. DOWD: I'm sorry. I hesitate --

19 THE COURT: No, no. Just go ahead.

20 MR. DOWD: The issue is that there's a separate
21 limitation that the wafers from Samsung don't practice
22 in addition to the things --

23 THE COURT: I mean you people are either
24 deliberately not hearing me or -- that's fine. There's
25 a separate issue. The jury will have to appreciate that

1 separation. You'll have to call back experts if that's
2 going to be argued. WARF is willing to do those with
3 their experts and you'll have to do it with yours. I
4 mean --

5 MR. DOWD: Okay.

6 THE COURT: -- there's plenty of things that we
7 will be able to have disputes about during trial. But
8 if we're just not seeing it the same way, then
9 continuing to tell me -- I'm looking for some evidence
10 of prejudice. I haven't heard it. We're going to do it
11 in the second phase.

12 MR. DOWD: Understood, Your Honor.

13 THE COURT: Thank you very much. Again, this
14 might be sort of the technical aspect. It's liability,
15 yes, but a jury is going to understand they only get
16 this if they show something more with respect to
17 liability and that's what we'll explain during the
18 damages phase. All right?

19 All right. Was there something more then for WARF?

20 MR. HEINRICH: No, Your Honor.

21 THE COURT: All right. Something more for
22 Apple beyond the -- their exhibits and confidentiality
23 that you wanted to be sure to take up before voir dire?

24 MR. LEE: Nothing else, Your Honor.

25 THE COURT: Thank you. Then let's take up the

1 confidentiality issue. And perhaps WARF could explain
2 to me where you think the dispute remains as to the
3 sealing of information.

4 MR. HEINRICH: Your Honor, there are two
5 aspects of the dispute. One involves the timing of the
6 disclosure of cross-examination exhibits. Apple
7 proposes that the parties exchange cross-examination
8 exhibits, in many cases before the witness's direct
9 testimony will even have ended, and given the nature of
10 cross-examination we just don't think that's practical.
11 What we have suggested to Apple, they have a list of
12 documents that they believe are highly confidential. We
13 propose that they make redactions ahead of time to those
14 documents and then we can meet-and-confer on those
15 redactions outside the context of which particular
16 witness they're going to be used for. Just again, given
17 the nature of cross-examination.

18 THE COURT: And is that, in WARF's view, the
19 remaining matter under dispute?

20 MR. HEINRICH: It's still unclear to us what
21 Apple's proposal is in terms of examining witnesses.
22 They have proposed to us -- I didn't see it in their
23 papers, some of them were very late, but they proposed
24 to us that witnesses --

25 THE COURT: Both sides' papers have been very

1 late. That's surely not --

2 MR. HEINRICH: Yes. Absolutely, Your Honor.

3 THE COURT: That goes without saying at this
4 point. But go ahead.

5 MR. HEINRICH: The proposed restrictions on how
6 witnesses can be examined, they suggested that certain
7 lines of documents can't be stated and we think that
8 that's not going to work in terms of how the jury --

9 THE COURT: All right. I'll let them
10 characterize what their position is then. But before I
11 do, let me just confirm the parties are -- are you
12 exchanging the day before the list of witnesses for the
13 next day? How are you working this?

14 MR. HEINRICH: Two days before.

15 THE COURT: All right. Very good. Then let me
16 hear from Apple. Let's start with this timing of
17 cross-examination exhibits. I'm not sure I follow where
18 the concern is.

19 MR. LEE: We're not asking -- what our proposal
20 is, Your Honor, had been -- we made some progress. Our
21 proposal --

22 THE COURT: It sounds like you have. I'm
23 actually quite pleased that these are the two areas.

24 MR. LEE: Yeah. We had proposed that we just
25 -- without identifying what witness they're going to be

1 used with, that we each disclose to the other the
2 confidential documents we might use.

3 THE COURT: And that sounded like exactly what
4 you were proposing.

5 MR. LEE: He -- sorry.

6 THE COURT: Is that right?

7 MR. HEINRICH: So I was proposing that they
8 have redactions to our --

9 THE COURT: When you say *they*, both sides would
10 exchange those documents that they believe the other
11 side might introduce at trial that should be redacted;
12 right?

13 MR. HEINRICH: Not quite, Your Honor. So we
14 have exchanged -- we have already exchanged the
15 documents that are in their confidential list that both
16 sides anticipate they may use in direct examination. We
17 haven't had a problem with that.

18 THE COURT: Right.

19 MR. HEINRICH: So the question is which
20 documents are going to be used in cross-examination.

21 THE COURT: It may be that we're having a
22 problem in terminology. Both sides -- I don't care
23 about cross-examination or not. There are exhibits that
24 will be admitted into evidence and therefore published
25 to the jury and on the public screen. Are you with me?

1 MR. HEINRICH: Yes.

2 THE COURT: I don't care if they're introduced
3 in cross-examination or they're introduced in direct.
4 Those are the exhibits that the parties should have
5 already exchanged. Have they not?

6 MR. HEINRICH: So we have -- we have obviously
7 exchanged our witness lists. We have not identified a
8 subset of documents that we may be using in
9 cross-examination from the --

10 THE COURT: There should be no subset. There
11 are exhibits for which you anticipate offering them in
12 evidence or not. If you're talking in cross-examination
13 about exhibits that you might use to impeach or to
14 refresh recollection, those are never going to be shown
15 on the screen, period. They're going to be shown to the
16 witness, but not to the jury, not on the public screen,
17 not on this screen. I hope we're consistent. And so
18 you don't need any sealing.

19 Your concern may be what they're asked about with
20 respect to that exhibit, but that's subject areas, and
21 you should start generally, and hopefully the parties
22 will have a general sense as to what those are. But
23 we're only talking about exhibits that are going to be
24 admitted at trial. Otherwise we're talking about
25 subject matter. And if the parties haven't reached some

1 general understanding of subject matter, you should
2 really work hard to do that before you get a witness on
3 the stand. If there's really a disagreement, we'll have
4 a sidebar as to how far you're going to go into it. But
5 I don't expect a lot of sidebars on subject matter
6 confidentiality. Is that clear?

7 MR. HEINRICH: Yes, Your Honor.

8 THE COURT: All right. So I think there may be
9 no further misunder -- if it's clear for WARF, let me
10 find out why it's not for Apple.

11 MR. LEE: This is helpful, Your Honor. I think
12 -- I'm looking at Mr. Heinrich. But I think with Your
13 Honor's guidance, I think what we thought we were
14 proposing and what I would again propose is that we
15 exchange lists of things that we think we're going to
16 use without identifying witnesses. We're not asking
17 anybody to give up their trial strategy, and then --
18 many of them will be Apple.

19 The reason we wanted to do this is so we could
20 prepare redacted versions that would --

21 THE COURT: I understand that.

22 MR. LEE: -- be used publicly.

23 THE COURT: It doesn't matter. If it's going
24 to be used for cross-examination but not introduced into
25 evidence, there's no need to exchange those.

1 MR. LEE: I understand.

2 THE COURT: They don't even have to be on your
3 exhibit list.

4 MR. LEE: We understand that. So we're
5 concerned about things that would go into evidence. I
6 think both of us recognize that.

7 THE COURT: All right. So I would say that you
8 now have an understanding, which is you both already
9 exchanged those things that will go into evidence. If
10 you haven't, you should provide everything and then the
11 parties can indicate what they think needs to be
12 redacted from those matters. Is that clear for Apple?

13 MR. LEE: Yes, Your Honor.

14 THE COURT: Have I complicated the matter for
15 WARF?

16 MR. HEINRICH: No, Your Honor.

17 THE COURT: Then let's move on to the second
18 issue, which is examining witnesses with exhibits. I
19 guess I need to hear from Apple. I've had it
20 characterized by WARF. But so we're clear with respect
21 to examining witnesses with exhibits, the exhibit -- you
22 can certainly show a witness a document that won't be in
23 evidence yet, but it's only going to be a matter of
24 confidentiality after you move admission. There are no
25 exhibits admitted yet in trial, so it seems to be the

1 same subset of exhibits we're talking about.

2 MR. LEE: If I could give Your Honor an
3 example.

4 THE COURT: Please, yes.

5 MR. LEE: We actually may agree on this as an
6 example, and the question is if Your Honor agrees, we
7 can then apply it to others. But one of the most
8 confidential and highly confidential things to Apple is
9 its source code.

10 THE COURT: Understood.

11 MR. LEE: There are a number of experts --
12 couple of experts who'll be talking about the source
13 code. The procedure that we have proposed is that as
14 the source code comes in, because it will be offered by
15 both of us, that it be shown on the jurors' screens and
16 for Your Honor, but not for the general public.

17 THE COURT: I don't think -- well, actually
18 maybe your IT people have already anticipated this. Do
19 we have the capacity to show only to the jury and not on
20 the big screens?

21 MR. OPPENHUIS: Only by shutting off the
22 monitor, Your Honor.

23 THE COURT: What about this screen?

24 MR. CHU: Can I make a suggestion?

25 THE COURT: Why don't we do this: At the

1 break, I have no -- I think it's appropriate. There may
2 be situations where we're going to let the jury see
3 something that I will find -- although I want to say
4 it's going to be a narrow set. If the jury sees it,
5 we're a long way down the road to making something
6 public, and in fact -- well, if it was going to be
7 appealed to the Seventh Circuit, I think you will have
8 accomplished that. But perhaps not. I will explain to
9 the jury that there may be some things that they're
10 looking at that they are obligated to keep confidential.
11 But at the break, why don't -- see if you can work out
12 your ability to keep that off the public screens.

13 Was there something more?

14 MR. LEE: No. That's the procedure that we
15 would propose. We just have to figure out what it
16 covers.

17 THE COURT: What are the names of your two IT
18 people? I'll start on this end.

19 MR. CHU: Joshua Oppenhuis. Spelled
20 O-p-p-e-n-h-u-i-s.

21 THE COURT: I'm not asking it, Mr. Oppenhuis,
22 because I intend to embarrass you in front of the jury.
23 I just think it's odd that I don't know since you become
24 an important part of the trial.

25 MR. SAYRES: David Sayres. S-a-y-r-e-s.

1 THE COURT: Very good.

2 MR. CHU: Your Honor, just that --

3 THE COURT: I want to make a point for each of
4 them. You already struck me as extremely good at what
5 you do just by virtue of how quickly you've anticipated
6 the Court's concerns and you obviously -- even if
7 counsel don't understand, you understand how this
8 monitor works and you've already overridden it, which is
9 fine with the Court as long as I can override you, which
10 I assume I can. If I hit jury witness, you can't
11 override that. I'm just going to assume that, unless
12 I'm advised after the break that that power has been
13 taken away from the Court.

14 With that said, the only thing that I've seen is
15 sometimes the IT experts are so good at what they do
16 that they anticipate highlighting before it's been
17 called to the witness's attention by counsel. We're not
18 going to do that. You're not an active participant in
19 the presentation of information to the jury. So if you
20 have a practice of highlighting or calling out, that is
21 done at counsel's direction. It's not done by probably
22 two people quite capable of doing it better than the
23 lawyers, but you're not testifying and you are a passive
24 participant to the -- to counsel's direction.

25 With that said, I'm not going to take up exhibits

1 at this time. We'll do that at the break, the seven
2 additional exhibits, unless you tell me that's an issue
3 for the jury. I want to make sure we get settled in.
4 You'll probably be advised, those of you sitting in the
5 far left side, you're going to need to move over. But
6 you don't need to do that now, you can do it at the
7 break. Because the jury will go into that area. So
8 just move your materials.

9 After the break, I think we're in agreement that
10 laptops are open season on the right and left side of
11 the jury [verbatim]. But down the middle, phones,
12 laptops, anything else, unless you're with -- well, down
13 the middle they're not going to be on, and if they are
14 on, that's going to be an issue for the court security
15 officer. And they're not looking for issues, they will
16 just let you know.

17 Anything further for WARF before we break?

18 MR. CHU: No, Your Honor.

19 THE COURT: Anything more for Apple?

20 MR. LEE: One issue briefly. From the outset
21 of the litigation, the Apple counsel, inside counsel,
22 who has been -- basically my contact is Iain Cunningham,
23 who Your Honor knows about because of the waiver issue.
24 He's not our corporate representative. Mr. Williams,
25 the designer of the chip, will be. We're not calling

1 Mr. Cunningham. They have him on the may call list. We
2 ask whether he could sit in. I mean he is our client
3 contact and has been during the course of the evidence.
4 They've invoked the rule.

5 THE COURT: I'm sorry, did you talk about that
6 with them?

7 MR. LEE: Yes. They said they wouldn't agree.

8 THE COURT: And what is the concern? You
9 actually think he may be called in this case?

10 MR. CHU: Yes, Your Honor.

11 THE COURT: It's a problem for me because -- so
12 is there -- will you have any attorneys for WARF in the
13 courtroom?

14 MR. CHU: We will have at least one lawyer, but
15 that person will not be a witness under any
16 circumstances.

17 THE COURT: Well, I know. But he's on the may
18 call list, which means somewhere in your rebuttal case
19 you may call him. Why don't we do this -- well, I guess
20 we don't really need a sidebar. Why don't you explain
21 to me what he would be relevant to.

22 MR. CHU: The willfulness case. We would call
23 him in our case-in-chief in willfulness.

24 THE COURT: All right. I will exclude him
25 during the willfulness case. If we get to that point,

1 he will be excluded. But he's going to be allowed to
2 remain otherwise. All right?

3 Unless there's something more for either side then,
4 we will take our break and reconvene as soon as we get
5 word that our jury panel is ready to go, which usually
6 is at nine, but it could be a few minutes after. And
7 you'll be notified. Again, once we're back, we will all
8 remain seated while the jury panel comes into the
9 courtroom.

10 Thank you both.

11 MR. CHU: Thank you.

12 MR. LEE: Thank you, Your Honor.

13 THE COURT: You're free to move about as you
14 wish.

15 (Recess 8:55-9:15 a.m.)

16 THE COURT: We'll go on the record for just a
17 moment. Apparently we had one potential jury panel
18 member who did not make it in this morning, which is a
19 little unusual. So you're going to get a new list which
20 will delete that name from your jury list. But
21 otherwise they're lining up to come in. And again,
22 we'll just remain seated as they parade into the
23 courtroom.

24 (Prospective jurors brought in courtroom at 9:19 a.m.)

25 (Proceedings called to order.)

1 THE CLERK: Case No. 14-CV-62. *Wisconsin*
2 *Alumni Research Foundation v. Apple, Inc.* called for
3 jury selection and trial.

4 THE COURT: Good morning to the members of the
5 jury panel who have just arrived in the courtroom.
6 We're here or you are here, we all are here for the
7 trial that has just been named. You are here for
8 possible jury service in Case Number 14-CV-62, *Wisconsin*
9 *Alumni Research Foundation v. Apple, Inc.*

10 Many people approach jury service with a certain
11 amount of apprehension and anxiety, but if all of us do
12 our jobs, most people end up feeling that jury service
13 was actually a worthwhile, even gratifying experience.
14 I'm confident that if we all do our jobs, you will as
15 well.

16 The United States courthouse that you entered this
17 morning is not the judges' courthouse, neither is it the
18 lawyers' courthouse nor even the parties' courthouse
19 that are before you. This is your courthouse. This is
20 your system of justice. Indeed this building belongs to
21 the public and it is important for all of us to keep in
22 mind that the public's business is being conducted here
23 today. To be able to continue to serve you better, we
24 will seek your input, not just as a jury, but as to how
25 we conduct this trial. We, all of us today, each of you

1 has a stake in this system.

2 When this trial concludes, you will not only be
3 asked to rule on the case, but to tell us anonymously
4 what we did right and what we did wrong. We cannot
5 serve the public and improve our system of justice
6 without each of your valuable contributions, and you
7 will be asked for it.

8 Other than by paying taxes and voting, service on a
9 jury is probably the most important duty that most of us
10 will undertake in support of our system of government.
11 Only by realizing how unique our system of justice is
12 and how dependent it is on good people like you can you
13 truly understand and appreciate it.

14 Trial by jury has been eliminated in many countries
15 of the world. The United States justice system is the
16 place where most of the jury trials in the world are now
17 held. Contrary to I think the impression that most of
18 us have, we, that is to say the United States, has the
19 highest involvement of nonlawyers of any system in the
20 world. That is a heritage that was handed down by the
21 people who founded our country. I cannot describe its
22 importance any better than the United States Supreme
23 Court justices did in the video that you watched this
24 morning so I won't attempt to do so. Instead, I just
25 want to emphasize your role as jurors.

1 In a trial, my job as the judge is to decide legal
2 questions and the juror's job is to decide fact
3 questions. The judge decides what kind of evidence is
4 admissible and instructs the jurors at the end of the
5 trial as to the law that they must apply in deciding the
6 case.

7 These instructions provide a legal yardstick, if
8 you will, by which you, as juror members, must measure
9 the evidence in order to decide the case. The jurors
10 decide what the facts are; that is, they decide from the
11 evidence admitted at trial what actually happened. An
12 important part of the juror's job is to decide what
13 testimony to believe and what testimony not to believe.
14 In deciding what actually happened, the juries are
15 searching for the truth. Many people, in fact, define a
16 trial as the search for the truth.

17 The trial begins with voir dire, which literally
18 means from the Latin and French, although it's
19 pronounced much more elegantly in either of those
20 languages, it means to speak the truth or to inquire.
21 And consistent with those definitions, the purpose of
22 voir dire is to ask a series of questions of jury panel
23 members and to obtain candid, truthful responses to help
24 ensure that we seat a jury comprised of impartial
25 individuals, which is a fundamental right of both

1 parties to this case.

2 The clerk has already seated the first 14 jury
3 panel members as the prospective jurors in the jury box.
4 All prospective jurors, and now I'm speaking about the
5 group in the back left corner, should listen carefully
6 to the questions that I pose as you may be called
7 forward and asked same or similar questions. In fact,
8 my first initial questions are going to be directed to
9 all of you, including those in the back.

10 Before I begin, let me ask you all to stand at this
11 time, including those in the back, raise your right
12 hand, and be sworn by our clerk.

13 (Prospective jury panel sworn in by clerk.)

14 THE COURT: You should answer I do if you do.

15 THE JURY: I do.

16 THE COURT: Thank you. And you may be seated.

17 I want to introduce each of you to our court
18 personnel. I've already introduced myself. I'm Bill
19 Conley. I will be the judge presiding over this matter.
20 And the clerk who just swore you in is Kyle Fredrickson.
21 He will be the deputy clerk who will work with me on
22 this matter.

23 Does anyone in the jury panel, including you in the
24 back, does any one of you know either of us before
25 today? Just raise your hand if you do. (No response.)

1 Thank you.

2 I'm going to describe the case very generally just
3 to orient you as to the nature of the subject matter and
4 the parties. The plaintiff here, Wisconsin Alumni
5 Research Foundation, also will commonly be referred to
6 during the course of the trial as WARF, owns U.S. Patent
7 No. 5,781,752. The Court and the parties may refer to
8 this patent as the '752 patent, the WARF patent, or even
9 the patent-in-suit. It is the patent that's directly at
10 issue in this case.

11 This patent was originally issued to its claimed
12 coinventors, a University of Wisconsin professor and
13 three of his then graduate students, and the rights
14 under the patent were assigned by the inventors to the
15 plaintiff here, WARF.

16 The '752 patent is titled *Table Based Data*
17 *Speculation Circuit for Parallel Processing Computer* and
18 it relates generally to architectures of electronic
19 computers and specifically to electronic computers for
20 processing.

21 Apple designs and sells smartphones, iPhones, and
22 tablets like the iPad. Certain iPhones and iPads
23 contain a system-on-chip, also which we'll refer to as
24 SoC, system-on-chip, or as a processor. WARF alleges
25 that this SoC or processor infringes certain claims of

1 the '752 patent. Apple denies that it infringes the
2 '752 patent and also contends that the claims of the
3 patent are invalid.

4 Has any one of you ever heard of this case before
5 today? And again, I would ask you to raise your hand.
6 I see one hand raised. Any others? All right. And let
7 me just direct this question to Juror No. 9, Ms. Lynch.
8 Is that -- is that because you read about it or you know
9 something more than what you read in the paper?

10 PROSPECTIVE JUROR LYNCH: I just read about it.

11 THE COURT: You can hold the mic. It's fine.
12 And in reading about it, I'll be instructing all members
13 of the jury, you probably appreciate that what's in a
14 newspaper report or television will be incomplete at
15 best. It will be inaccurate at worst. Do you feel as
16 though what you read has caused you to form an opinion
17 as to who should win in this case?

18 PROSPECTIVE JUROR LYNCH: No. It was just the
19 same stuff you said.

20 THE COURT: So basically what I read as a
21 description of the case is about all you could tell me
22 about the case? Do you remember anything about the
23 nature of the article itself?

24 PROSPECTIVE JUROR LYNCH: It was online.

25 THE COURT: All right. And do you feel as

1 though you have any impression, that you have some
2 partiality as you start out my questioning? And I'll
3 ask you some specifics as well for you to think about
4 it.

5 PROSPECTIVE JUROR LYNCH: I don't think so.

6 THE COURT: All right. I want you to think
7 about that. If something comes back as we go through
8 this, you think it might affect your impartiality, then
9 you should let me know.

10 The trial of this case will begin today, October
11 5th, and depending on a number of variables, will last
12 from one to two weeks. This means that the trial could
13 last through next Friday, October 16th. I should also
14 note that although next Monday, October 12th, is a
15 federal holiday, which would normally mean this court
16 would be closed, the court may opt to hold trial on that
17 day if the case is moving at a slower pace than
18 expected. I will keep you appraised of the progress of
19 the trial for your own information and planning
20 purposes. But you should plan on serving until the
21 16th, if necessary.

22 The trial day will generally run from 8:30 a.m.
23 until 5:30 p.m., with an hour break for lunch and a
24 short break of 15 to 20 minutes, usually about 20
25 minutes, in the morning and again in the afternoon. You

1 will have at least an hour for lunch plus those two
2 additional short breaks. Is there any one of you who
3 would be unable to serve as a juror during this time for
4 any reason, including vision, hearing, or other health
5 limitations? If that applies to you, you should raise
6 your hand. And I see one hand raised. If you could
7 pass the mic back.

8 THE BAILIFF: There's a problem with the mic
9 right now.

10 THE COURT: That figures. Why don't you -- why
11 don't you stand, it's Juror No. 4, and let me know what
12 your issue is.

13 PROSPECTIVE JUROR COLSTAD: I'm scheduled for
14 carpal surgery on my hand next Tuesday morning.

15 THE COURT: Okay. I would like to excuse you,
16 but I don't know yet whether I can. I take it that's
17 been something that had been scheduled for some time?

18 PROSPECTIVE JUROR COLSTAD: Yes.

19 THE COURT: And if you're not able to get in
20 then, you could be pushed back substantially so you'd
21 like to proceed.

22 PROSPECTIVE JUROR COLSTAD: I would.

23 THE COURT: In any event, you're ready to have
24 this done. With all the time you've waited, you'd like
25 to have it done now.

1 PROSPECTIVE JUROR COLSTAD: Yes.

2 THE COURT: Are you in active pain with it?

3 PROSPECTIVE JUROR COLSTAD: No. I just can't
4 feel much in my hand.

5 THE COURT: So it would be nice to have it
6 taken care of.

7 PROSPECTIVE JUROR COLSTAD: Yes.

8 THE COURT: And I'm not -- I'm not minimizing,
9 but in terms of your ability to follow and listen to the
10 matters in this trial, that's something you're able to
11 do.

12 PROSPECTIVE JUROR COLSTAD: I can do that, yes.

13 THE COURT: Okay. I will keep it in mind.

14 PROSPECTIVE JUROR COLSTAD: Okay.

15 THE COURT: And if we get to the point where
16 I'm confident that we have a sufficient number, we can
17 come back to that. But thank you very much.

18 I didn't see any other hands. Were there any other
19 hands raised? (No response.) Thank you.

20 I'm now going to ask the attorneys for both sides
21 in this case to stand and introduce themselves and their
22 law firms very briefly. And then after they're done, I
23 would ask that all counsel who are named stand and just
24 turn for a moment so that the other members of the jury
25 panel can see them.

1 And you may proceed on behalf of WARF.

2 MR. CHU: Good morning, Your Honor. Thank you
3 very much. Good morning, Ladies and Gentlemen. My name
4 is Moran Chu. I practice with the firm Irell & Manella.
5 And I'm going to introduce a number of my colleagues who
6 may have speaking parts during the course of the trial.
7 And I'll start with my colleague Gary Frischling. Amy
8 Proctor. Alan Heinrich. Jason Sheasby. Tony Rowles
9 maybe. And Chris -- there's another individual I do not
10 see in the courtroom at this time, Your Honor. And
11 then --

12 THE COURT: And Chris's last name is?

13 MR. CHU: Abernethy. And then we are also
14 working with Jennifer Gregor.

15 THE COURT: Very good. Does anyone in the jury
16 panel, including you in the back behind the bar, know
17 any of those lawyers or the law firm that was named?
18 Just raise your hand if you do. (No response.) Very
19 good. Thank you.

20 And I will ask then Apple's counsel to do the same.

21 MR. LEE: Good morning, Your Honor. Good
22 morning, Ladies and Gentlemen. My name is Bill Lee.
23 I'm from the law firm of Wilmer Hale. And with us are
24 Jim Dowd, David Marcus, and there is another lawyer,
25 Jordan Hirsch, you may hear from during the course of

1 the trial. Together with us is Cathy Cetrangolo. And
2 that's the group of lawyers that you will hear from.

3 THE COURT: All right. Very good. And I'll
4 ask the same question of the entire jury panel. Anyone
5 who knows any of those lawyers or the law firm that was
6 mentioned? (No response.)

7 Very good. Then at this time I'm going to ask
8 Mr. Chu to introduce your client and corporate
9 representative.

10 MR. CHU: Thank you very much, Your Honor. I'd
11 like to introduce Dr. Carl Gulbrandsen, who is the
12 managing director of the Wisconsin Alumni Research
13 Foundation.

14 THE COURT: Thank you very much. And I'll ask
15 the same question. Does anyone know Mr. Gulbrandsen
16 before today? Just raise your hand. (No response.)

17 Very good. Let's do the same for Apple's corporate
18 representative.

19 MR. LEE: Your Honor, I'll introduce two people
20 who are present in the courtroom. I'm going to
21 introduce Mr. Gerard Williams from Apple, who is one of
22 the engineers who designed the products you'll hear
23 about, and Mr. Iain Cunningham, a director of litigation
24 at Apple.

25 THE COURT: All right. Do anyone in the jury

1 panel know either of those gentlemen? (No response.)

2 Thank you.

3 With that then, I'm going to turn briefly to a
4 rather long list of names, and it's possible that you
5 will recognize one of these names. If you do, it's
6 likely that they're not the same person and I realize
7 now that I may butcher a few of these names. Usually
8 I'm better about asking about pronunciations, but I'll
9 do my best. And counsel, correct me if the
10 pronunciation should be different. And just raise your
11 hand if you know one of these people who may be
12 mentioned or involved in this case or called in this
13 case.

14 Murali Annavaram. David August. Todd Austin.
15 Peter Bannon. Emily Bauer. Keith Baxter. Robert
16 Blattberg or Blattberg, B-l-a-t-t. Scott Breach. Is it
17 Lee Cagan? Mark Chandler. Robert Colwell. Thomas
18 Conte. Iain or Iain Cunningham. It's I-a-i-n. William
19 Dally, D-a-l-l-y. Julie Davis. James L. Day, Jr.
20 Richard Donaldson. Jack Doweck, D-o-w-e-c-k. Kaiann
21 Drance, D-r-a-n-c-e. Joel Emmer, E-m-m-e-r. David
22 Fite, F-i-t-e. Patrick Gelsinger. Carl Gulbrandsen,
23 who you've already heard. Lorin Hitt. Michael Jaynes.
24 W. Michael Johnson. Christopher Knittel, K-n-i-t-t-e-l.
25 Knittel perhaps. And just so you know, we're now in the

1 double A. We started with A, we're now at double A and
2 we go to VV, so we're more than halfway.

3 Catharine Lawton. Scott Mahlke, M-a-h-l-k-e.
4 Andreas Moshovos, M-o-s-h-o-v-o-s. Patrick McNamara.
5 Stephan Meier, M-e-i-e-r. Deanna Moris, formerly known
6 as Deanna Dietrich. Trevor Mudge. John Mylius,
7 M-y-l-i-u-s. Mylius. David Papworth. Glenn Reinman.
8 It's R-e-i-n-m-a-n. The German would be Reinman. I
9 suppose it could be Reinman. Jeffrey Risher. Ronnie
10 Ronen. We're coming down the stretch. Gerald or Jerry
11 Shattuck. Gurindar Sohl, S-o-h-l -- I'm sorry, Sohi or
12 Sohi. Thank you. Simon C. Steely, Jr. Suparn Vats.
13 David Webb. Jayna Whitt. Gerard Williams, the III.
14 Terani Vijaykumar. That's probably butchered. It's
15 Vijaykumar probably more likely. And Adi Yoaz, Y-o-a-z.
16 I'm always amazed when you do that many names that
17 somebody doesn't at least know someone by that name.
18 Mathematically I think you get any 26 people together
19 and two of them have the same birthday and yet we don't
20 find a hand for this.

21 We're going to now move on to something which we
22 have found works well. Hopefully all of you in the box
23 have your sheet of paper, and we're going to start with
24 Juror No. 1 asking that you just stand and describe
25 yourself using this list as a guide. I'm going to state

1 that this is not meant to be exhaustive, but we're going
2 to ask you your name; age; city or town of residence;
3 where you were born and raised; your marital status;
4 number of children, if any; your current occupation;
5 former, if retired; the same for your spouse or domestic
6 partner; any military service, including branch, rank
7 and approximate date of discharge if it applies to you;
8 how far you went to school; major areas of study, if
9 any. Specifically I would ask you to state in this case
10 whether you attend, attended or graduated from a
11 University of Wisconsin institution; your membership in
12 any group or organizations; hobbies and leisure-time
13 activities; favorite types of reading material;
14 favorites types of television shows, music, movies and
15 other entertainment; bumper stickers; letters to the
16 editor, or calls into radio or television shows.

17 We've come up with this list only to try to assist
18 in an efficient way the parties to sort of get a sense
19 of who you are as a person. If you think there's
20 something else that's outside this list that may be
21 relevant or if you feel identifies you as an individual,
22 you're welcome to offer that as well. The point is not
23 to be intrusive but to keep in mind that the parties
24 have a right to choose a panel that they think will be
25 impartial. And so you should be as forthcoming as you

1 can in describing these factors.

2 And with that by way of introduction, we'll start
3 with Juror No. 1.

4 PROSPECTIVE JUROR BETTENHAUSEN: My name is Sue
5 Bettenhausen. I'm from Milton, Wisconsin, and I'm 45.
6 I was born and raised around Janesville, Wisconsin.

7 Currently married. No children.

8 I am a marketing communications director, which is
9 kind of like a creative director.

10 My spouse is a high school art teacher.

11 No military service.

12 I am a graduate from the University of
13 Wisconsin-Whitewater with a bachelor's in marketing.

14 Any groups. One of my hobbies is riding horses, so
15 I'm a member of a number of horse-riding organizations.

16 Favorite types of reading: Probably kind of how-to
17 and that sort of thing. Mostly to do with horses or
18 another hobby, race cars.

19 Television: Kind of like a History Channel buff,
20 so American Pickers, that sort of thing.

21 And no bumper stickers or any of that sort of fun
22 stuff.

23 THE COURT: All right. You mentioned that you
24 were involved in marketing communications. What kind of
25 company are we talking about? Is it a product that

1 you're marketing or a service?

2 PROSPECTIVE JUROR BETTENHAUSEN: We're a direct
3 marketing company, so I manage the area that produces
4 the catalogues and websites and that sort of stuff for
5 the direct marketing business.

6 THE COURT: Can you describe the product just
7 generally.

8 PROSPECTIVE JUROR BETTENHAUSEN: We run kind of
9 three different companies. We do marketing materials
10 for -- one is a forestry company, one is an agriculture
11 company, and one services the towing industry.

12 THE COURT: And is your company one that
13 services or provides marketing services for those three
14 independent entities or are they owned -- each of those
15 are owned by the company you work for?

16 PROSPECTIVE JUROR BETTENHAUSEN: Correct, yeah.

17 THE COURT: The latter.

18 PROSPECTIVE JUROR BETTENHAUSEN: They have a
19 parent company.

20 THE COURT: And you're employed by the parent
21 company.

22 PROSPECTIVE JUROR BETTENHAUSEN: Yes.

23 THE COURT: All right. Do you mind mentioning
24 the name of the company?

25 PROSPECTIVE JUROR BETTENHAUSEN: Ariens

1 Specialty Brands.

2 THE COURT: All right. You may be seated. And
3 we'll go to Juror No. 2.

4 PROSPECTIVE JUROR PICKERING: Yes. My name is
5 Bruce Pickering. I'm 69 years old. I live in Beloit,
6 although I was born and raised north of La Crosse in a
7 farming community, so I'm a displaced farm kid.

8 I am presently divorced. I have two children.

9 I'm also retired. I worked formerly for Fairbanks
10 Morse in Beloit for 37 years. I was in the research and
11 development engineering department.

12 I was in the military service from 1966 to 1969.
13 Well, actually 1970. I was in the U.S. Navy in the
14 submarine service at that time.

15 I graduated high school, went to trade schools
16 before I started at Fairbanks. Then I was under an
17 apprentice program there and then had some additional
18 education while in that apprenticeship program. And
19 then I went to two schools while I was in the Navy for
20 the engines that we were using.

21 I'm not currently -- well, I'm in a church. I'm in
22 Green Baptist Church. Other than that, I'm no longer in
23 any groups or organizations.

24 Hobbies: I've got to say pretty much involved with
25 motorcycling. I like vintage and classic motorcycles.

1 I have a few of those and that takes a lot of my time.

2 I like to restore them and actually ride them.

3 Reading material: Mostly motorcycle-related,
4 engineering-related, and stuff like that. Mechanical
5 things.

6 I don't watch television.

7 I listen to a lot of music. I like Southern Gospel
8 music probably about the best. I have that on most of
9 the time I'm awake at home. So other than that, that's
10 about it for me.

11 THE COURT: Let me just ask you a little bit
12 about your work. I take it if you were going to
13 describe an area of expertise, it would probably be
14 engines; is that right?

15 PROSPECTIVE JUROR PICKERING: Yeah. Engines
16 and mechanical things.

17 THE COURT: All right. So you haven't earned a
18 formal degree in mechanical engineering, but between all
19 of the training that you've done and the on-the-job
20 work, you would consider yourself a mechanical engineer.

21 PROSPECTIVE JUROR PICKERING: That's correct.
22 In the research and development area.

23 THE COURT: All right. And what I wanted to
24 talk to you about, what is it that Fairbanks Morse --
25 what is it that they do?

1 PROSPECTIVE JUROR PICKERING: Fairbanks Morse.
2 They're actually a major engine manufacturer -- well,
3 mostly engines. They're a diverse company. But in
4 Beloit, it was mostly engines, and we built engines for
5 initially railroads, for locomotives and stuff. A lot
6 of the submarines and Navy ships had them and still have
7 them. They're still building engines for the Navy at
8 this time. A lot of power plants, nuclear standby
9 engines, a lot of Fairbanks Morse, and also we build the
10 Colt-Pielstick, the MAN, and one other -- ELCO engines.

11 THE COURT: So fair to say that aside from your
12 motorcycle work, you didn't work on auto or motorcycle
13 engines, you worked on very large engines.

14 PROSPECTIVE JUROR PICKERING: Yeah, I worked on
15 very large engines in my job, but I went to auto tech
16 school before I went to Fairbanks Morse. And I've
17 worked on motorcycles since I was 14 years old.

18 THE COURT: Here's the reason I'm asking: I'm
19 asking about the research and development side. You're
20 aware, for example, there are patents for motorcycle
21 engines and car engines. You know about that.

22 PROSPECTIVE JUROR PICKERING: Certainly.

23 THE COURT: Did you do research and development
24 for anything like that or did you mainly do it for the
25 large engines on the job?

1 PROSPECTIVE JUROR PICKERING: Yeah, I don't --
2 yeah. I was just involved with research on the job and
3 anything that would be patented on the job.

4 THE COURT: That's what I was going to ask you
5 about. So were you involved in developing patents or
6 applying for patents for your company?

7 PROSPECTIVE JUROR PICKERING: No. Anything
8 that I worked on, was involved in, it was all
9 automatically the property of the company that I worked
10 for.

11 THE COURT: All right. And were you named as
12 an inventor on any patent that you know of?

13 PROSPECTIVE JUROR PICKERING: Not that I'm
14 aware of.

15 THE COURT: All right. Were you -- did you
16 have any role in the application, patent application
17 process?

18 PROSPECTIVE JUROR PICKERING: Not at all.

19 THE COURT: So your research and development
20 amounted to what? What did you do in terms of research
21 and development?

22 PROSPECTIVE JUROR PICKERING: Well, I worked in
23 what was the engine lab where we did a lot of the
24 testing and the development. But I also got into the
25 design, the testing, and then the report writing and

1 stuff like that.

2 THE COURT: Sure.

3 PROSPECTIVE JUROR PICKERING: And lots of times
4 we were called on, our group, to go out in the field at
5 different locations in different countries to work on
6 the newer applications that maybe were having some
7 difficulties or something along that line.

8 THE COURT: I've got it. Thank you very much.
9 Actually I should say two things: One is with respect
10 to the work that you've done in developing product,
11 you're going to hear from both sides about the
12 development of technologies involving computer
13 processors. Do you think you can listen and weigh both
14 sides' evidence as presented in the courtroom? Not that
15 you set your common sense aside or your experience, but
16 that you will weigh the evidence here as opposed to
17 saying well, it must have worked like that because
18 that's how it worked when I did it.

19 PROSPECTIVE JUROR PICKERING: I would certainly
20 think so.

21 THE COURT: The other thing is I just want to
22 thank you for your service to our country, particularly
23 during a challenging time.

24 PROSPECTIVE JUROR PICKERING: You're welcome.
25 Can I add one thing as a comment?

1 THE COURT: Very briefly. I hesitate because I
2 don't know what it's going to be.

3 PROSPECTIVE JUROR PICKERING: When they landed
4 the first man on the moon, I was on short patrol on Hong
5 Kong.

6 THE COURT: Very exciting.

7 PROSPECTIVE JUROR PICKERING: It was.

8 THE COURT: Juror No. 3.

9 PROSPECTIVE JUROR VAN HORN: My name is Ben Van
10 Horn. I'm 37 and I live here in Madison, Wisconsin. I
11 was born and raised in Washington state in the woods.

12 I'm married with four kids.

13 Currently I do sequel reporting, crystal reports
14 for health care for a consulting company here in town.

15 My wife works for Woodman's, a local grocery store.

16 No military service.

17 I have a bachelor's in information systems from
18 Washington State University, a master's in information
19 systems from Brigham Young University in Utah.

20 I'm a Mormon. Also I'm a member of the Project
21 Management Institute here in Wisconsin.

22 Hobbies and leisure time: I play video games and
23 chase after kids. That's my leisure time. I play D&D.
24 I have to admit that, I guess.

25 Favorite type of reading material would be fantasy

1 and sci-fi. D&D Splatbooks.

2 Favorite type of television shows: I like Drunk
3 History, Enemies, cartoons I can watch with the kids.
4 Thank goodness they're not like Barney shows, they're
5 the teen ones like Big Hero 6 is my recent movie.

6 And I think I have an antiWalker bumper sticker on
7 my car. My wife put it there. I don't know what it
8 says.

9 THE COURT: All right. Let me ask you a little
10 bit about your education in information services. I
11 imagine it involves some computer science courses.

12 PROSPECTIVE JUROR VAN HORN: Yes.

13 THE COURT: Did it mainly involve computer
14 science and computer software in managing information or
15 is it more general than that?

16 PROSPECTIVE JUROR VAN HORN: It's mostly
17 computer and human interactions, making sure the people
18 can actually use the machines and get information out of
19 it instead of just data.

20 THE COURT: All right. You probably have
21 figured out, since I described it already, that part of
22 this is information processing through a processor and
23 doing it accurately. Do you have any concerns that your
24 training might make it difficult for you to decide the
25 case based on what's presented in the courtroom as

1 opposed to your general knowledge?

2 I'm essentially asking the same kind of question I
3 posed to Juror No. 2, which is do you think that you
4 would have a tendency to view while I know how this
5 works and assume that you understand it, as opposed to
6 listen closely to the evidence and the testimony,
7 including expert testimony in the courtroom, and
8 weighing that as your basis for your decision-making?

9 PROSPECTIVE JUROR VAN HORN: I don't think it
10 will be a problem. I'm familiar with relation databases
11 and how they work, but even just the description of the
12 patent sounds interesting, but not something I really
13 know a lot of.

14 THE COURT: All right. So you feel -- at least
15 so far, and again, I'll ask you to think about this as
16 we go through the voir dire process, but so far you
17 don't think that your background is going to be such
18 that you will be partial to either side in this case.
19 Is that a fair statement?

20 PROSPECTIVE JUROR VAN HORN: Correct.

21 THE COURT: Thank you very much. And we'll
22 pass the mic to Juror No. 4. We've learned a little bit
23 about -- I don't know if you were a secretary at some
24 point or you just use the computer a lot, but that seems
25 to be the two places.

1 PROSPECTIVE JUROR COLSTAD: No. Piano.

2 THE COURT: There you are. Why don't you tell
3 us a little bit about yourself.

4 PROSPECTIVE JUROR COLSTAD: My name is Sandra
5 Colstad. I'm 67 years old. I live in New Glarus. I
6 was born in Monroe and raised in Belleville.

7 I'm married 45 years and I have three children.

8 I am not currently employed. I was a kindergarten
9 teacher and first grade teacher for 36 years. My
10 husband also was a teacher, middle school math and
11 science teacher, and he is also retired.

12 Neither one of us were in the military.

13 I graduated with a BS from University of
14 Wisconsin-Oshkosh in lower elementary. I got my
15 master's in reading from University of Wisconsin-Oshkosh
16 as well.

17 I belong to the Monroe Swiss Singers. I also
18 belong to Gilda's Club here in Madison.

19 Right now my favorite hobby, I guess, is traveling
20 and I love to read about traveling. I also like to read
21 anything light and not too detailed right now. I like
22 musicals and I like sitcoms that are funny. Don't like
23 any kind of violence whatsoever.

24 The only bumper sticker I have is a Hope for a Cure
25 breast cancer on my car.

1 THE COURT: Very good. Thank you very much.

2 And you may pass the mic to Juror No. 5.

3 PROSPECTIVE JUROR BLANG: Hi. My name is
4 Michelle Blang and I'm 41. I live in Waunakee,
5 Wisconsin. I'm born and -- raised in Waunakee, but born
6 in Madison, Wisconsin.

7 I've been married for about three months now,
8 second marriage, and we have five children together,
9 three of which are biological and I now have two
10 stepchildren. I should mention too I'm going through a
11 name change, so my new last name -- I'm in the process,
12 so it will be Leyer, L-e-y-e-r.

13 No military service.

14 My current occupation, I'm an executive recruiter
15 and I just started my own company in December of last
16 year. I was formerly running a talent acquisition for a
17 Greek yogurt company called Chobani in New York. My
18 husband is the chief operation officer for a probiotic
19 company here in the area.

20 I have a bachelor's degree from the University of
21 Wisconsin-Eau Claire.

22 Not part of really any groups or organizations. My
23 kiddos keep me pretty busy.

24 Hobbies would include going to all of my children's
25 sporting events and things like that. Exercising. I

1 love to hike and bike and things like that.

2 Reading material would be very light reading. I
3 love cooking light. Love to cook. And any kind of
4 mindless reading.

5 Television shows. I would say I don't watch much
6 television or that sort of thing or watch movies, but
7 the Today Show I'll have on in the morning, Dateline,
8 and any kind of HGTV.

9 THE COURT: I'm sorry. Go ahead.

10 PROSPECTIVE JUROR BLANG: And no bumper
11 stickers or call-ins or anything of that nature.

12 THE COURT: Is there certain kinds of
13 businesses that you're a recruit executive for?

14 PROSPECTIVE JUROR BLANG: Yeah. Typically
15 natural and organic food and beverage manufacturing
16 companies throughout the country, including Canada as
17 well. And then some nutraceutical companies. I do work
18 with a probiotic company, actually my husband's company,
19 recruited several folks there.

20 THE COURT: All right. And in the process of
21 that, did you ever encounter individuals, I guess
22 perhaps including your husband, who were developing
23 products with -- involving intellectual property that
24 might be patented? Is that a subject matter you really
25 got into?

1 PROSPECTIVE JUROR BLANG: I have not.

2 THE COURT: Even with your husband you haven't
3 talked about how he would be protecting information that
4 was developed in his company?

5 PROSPECTIVE JUROR BLANG: Right. I know he is
6 working with a patent attorney right now for a specific
7 function of the company and I know nothing about it, and
8 that's actually fairly recent.

9 THE COURT: Thank you very much. We'll go to
10 Juror No. 6.

11 PROSPECTIVE JUROR WEST: My name is Brad West.
12 I was -- I'm 45 years old. I was born and raised in
13 Palmyra, Wisconsin, which is just a small town. It's
14 actually a village.

15 I'm married. I have one daughter.

16 My current occupation is I'm a foreman of a machine
17 shop in the Village of North Prairie. My wife is a
18 dialysis technician.

19 I have no military.

20 I went through a four-year apprenticeship program
21 to become a journeyman for tool and machining.

22 I'm not in any groups.

23 My hobbies are pretty much spent with my kid doing
24 hunting, fishing, playing a lot of baseball.

25 I don't read a whole lot.

1 And the only thing I really watch on TV is sporting
2 events.

3 THE COURT: Your four-year apprenticeship
4 program, was that through the company?

5 PROSPECTIVE JUROR WEST: Yes. Yes, sir.

6 THE COURT: And then you're qualified to belong
7 to a union or --

8 PROSPECTIVE JUROR WEST: Journeyman.
9 Journeyman status.

10 THE COURT: And the kind of machining that you
11 work with?

12 PROSPECTIVE JUROR WEST: We do a lot of repair
13 work for pump companies and stuff like that. We do some
14 crane work for -- we're a job shop, so we get jobbed out
15 from like companies like Harnischfeger and stuff like
16 that out of Milwaukee.

17 THE COURT: And you would be repairing or
18 retooling individual parts that fit on to existing
19 equipment.

20 PROSPECTIVE JUROR WEST: Correct.

21 THE COURT: Very good. Thank you. Juror No.
22 7.

23 PROSPECTIVE JUROR ELMER: My name is Angeline
24 Elmer and I live in Oregon, Wisconsin. I'm 40 and thus
25 my eyes, I need bifocals. But I'm stubborn so I haven't

1 gone to the eye doctor. So I have to take my glasses
2 off here.

3 THE COURT: The most important thing is you can
4 see distance and close up effectively using the glasses.

5 PROSPECTIVE JUROR ELMER: Yes.

6 THE COURT: Most importantly for the parties
7 who will be presenting things.

8 PROSPECTIVE JUROR ELMER: Yes.

9 THE COURT: Thank you.

10 PROSPECTIVE JUROR ELMER: I currently live in
11 Oregon, Wisconsin. I was born and raised in Brooklyn,
12 Wisconsin, so I haven't traveled very far.

13 I'm married and have three children.

14 I am currently the front desk coordinator at a
15 chiropractic clinic. My husband is a delivery driver
16 for a liquor company.

17 I have never served in the military.

18 My bachelor's degree is in psychology and
19 complementary and alternative health, and I'm currently
20 working on a master of arts in counseling, none of which
21 are through the University of Wisconsin.

22 I'm not a member in any type of group or
23 organization.

24 Leisure-time activities is writing papers for my
25 education.

1 Favorite type of reading would be textbooks.

2 Don't watch any TV. Listen to a wide variety of
3 music.

4 And I have no bumper stickers or any of that kind
5 of stuff.

6 THE COURT: Thank you very much. Juror No. 8.

7 PROSPECTIVE JUROR MARTINSON: My name is Lisa
8 Martinson. I was born and raised in Sun Prairie,
9 Wisconsin, which I live now.

10 I'm an attorney. My husband is a web developer.

11 I've not served in the military.

12 I studied and graduated from the University of
13 Wisconsin-Madison for my undergrad and JD.

14 And just professional organizations -- well, I have
15 two kids and I do a lot with them and a lot of running.

16 I like to read historical fiction. Fiction.

17 I don't really watch a lot of TV. Listen to a wide
18 variety of music. Mostly just kid movies right now.

19 And no bumper stickers.

20 THE COURT: Can you tell me a little bit about
21 your own practice area.

22 PROSPECTIVE JUROR MARTINSON: Sure. I do
23 family law, estate planning, tax preparation, and some
24 real estate.

25 THE COURT: Have you ever encountered

1 intellectual property in the law?

2 PROSPECTIVE JUROR MARTINSON: No.

3 THE COURT: Didn't take it as a course in law
4 school?

5 PROSPECTIVE JUROR MARTINSON: No.

6 THE COURT: In your own practice, you obviously
7 develop various areas of expertise and you also have
8 some working knowledge as to what takes place in a
9 courtroom. You realize that your obligation will be to
10 take off that hat and to listen closely to the legal
11 instructions that I provide you and to follow those
12 instructions, even if you think I got it wrong. It's my
13 job to establish what the law is --

14 PROSPECTIVE JUROR MARTINSON: Yes.

15 THE COURT: -- that you'll need to apply. I
16 don't say that facetiously because each of us,
17 particularly if you're trained in the law, may think you
18 have a different perspective. Similarly as a lawyer,
19 you appreciate that you're just one voice on a jury.
20 You don't bring special expertise in terms of
21 fact-finding.

22 PROSPECTIVE JUROR MARTINSON: Right.

23 THE COURT: You bring your common sense and
24 your own life experience. So I don't mean to minimize
25 that, but both you and your fellow members should view

1 you as another participant in the process of
2 deliberating over facts. You understand that.

3 PROSPECTIVE JUROR MARTINSON: Yes.

4 THE COURT: Any concerns about your ability to
5 play that role in this case?

6 PROSPECTIVE JUROR MARTINSON: No.

7 THE COURT: All right. You mentioned your
8 husband is a web developer. Did he have computer
9 science training of any kind?

10 PROSPECTIVE JUROR MARTINSON: Yes.

11 THE COURT: All right. And where did he get
12 that?

13 PROSPECTIVE JUROR MARTINSON: He went to the
14 University of Wisconsin and MATC here in Madison.

15 THE COURT: All right. And did he earn a
16 degree from the University of Wisconsin in computer
17 science?

18 PROSPECTIVE JUROR MARTINSON: No. His
19 undergrad was there and then he went back to school.

20 THE COURT: I'm with you. Has he talked to you
21 about computer processing or how computers work?

22 PROSPECTIVE JUROR MARTINSON: Yes.

23 THE COURT: That's come up.

24 PROSPECTIVE JUROR MARTINSON: Yes.

25 THE COURT: Been a source of frustration as he

1 developed webs. You're laughing and I don't know why.

2 PROSPECTIVE JUROR MARTINSON: I asked him
3 because I was interested.

4 THE COURT: Sure. Lawyers tend to ask a lot of
5 the questions.

6 PROSPECTIVE JUROR MARTINSON: Yes.

7 THE COURT: We may not be good at listening,
8 but we're good at asking questions. And so in the
9 process of that -- I probably shouldn't even use that
10 term. In listening to his experiences with computers,
11 do you think that you developed any opinions about --
12 and here we're dealing with a very specific area --
13 processing or the communication of information by the
14 software that might make it difficult for you to be fair
15 to both sides here, whether it's the University --
16 whether it's WARF or it's Apple.

17 PROSPECTIVE JUROR MARTINSON: No. I have not
18 developed any opinions.

19 THE COURT: All right. Very good. If you
20 could be good enough to pass the mic straight down,
21 we'll go then to Juror No. 13 -- actually 14 on our
22 dance card. If you would stand and just describe
23 yourself.

24 PROSPECTIVE JUROR EGGER: My name is Mark
25 Egger. I originally come from Poynette, Wisconsin,

1 about 20 miles north of here. Me and my wife, Ruth,
2 have been married going on 37 years. We lost our son
3 two years ago, the only child we had.

4 I went to school, technical school, back in the
5 70's, Madison Area Technical School, for auto mechanics.
6 Open doors.

7 I currently work at the Poynette School District as
8 a building and ground supervisor.

9 My hobbies include -- still include cars, which I
10 don't put bumper stickers on. Thank you.

11 THE COURT: Let me just ask you a couple
12 questions. First of all, I am sincerely sorry for your
13 loss. My mother always said, I think as a deterrent to
14 our doing anything really stupid, is that there could be
15 no greater loss, and as a father myself, I'm sure that's
16 true.

17 What I want to ask about, first I didn't hear your
18 age.

19 PROSPECTIVE JUROR EGGER: My age is 58.

20 THE COURT: All right. And the nature of the
21 auto work that you did?

22 PROSPECTIVE JUROR EGGER: It was auto mechanics
23 back then. Things have changed. That was back in the
24 mid 70's.

25 THE COURT: Right. And it was working directly

1 on individual cars, not developing product or something
2 like that.

3 PROSPECTIVE JUROR EGGER: Correct. Yes.

4 THE COURT: Very good. Thank you very much.
5 We'll go then to Juror No. 13.

6 PROSPECTIVE JUROR WEISERT: I'm Charmain
7 Weisert. I'm 59. I live in LaValle, Wisconsin, which
8 is just a village as well. Grew up in Reedsburg,
9 Wisconsin.

10 I'm married; have two children.

11 I'm a human resources generalist. I've done that
12 my entire life, my career. My husband is a maintenance
13 supervisor at a large printing company.

14 I do not have military service.

15 I had two years at U.W.-Baraboo and then went on
16 and got my bachelor's degree in organizational
17 management from Viterbo.

18 I'm not really involved in any memberships. I do
19 volunteer. My husband is a veteran, so I volunteer with
20 his legion.

21 Hobbies and leisure times: I spend time with my
22 little grandson and ride bike and walk and garden.

23 And favorite readings would be anything cooking
24 basically. I enjoy that.

25 Not a big television watcher as well. Maybe Buying

1 Alaska or something like that.

2 I do not -- I listen to Wisconsin Public Radio all
3 the time. That would be my entertainment.

4 THE COURT: Could you just tell me in human
5 resources, you said human resources generalist, the
6 kinds of company you generally would work for.

7 PROSPECTIVE JUROR WEISERT: Right now I work
8 for manufacturing. It's customized welders. Prior to
9 that I worked with nurses and social workers. A bank --
10 I worked in the banking industry for a while.

11 THE COURT: All right. You or your husband
12 ever involved in intellectual property work?

13 PROSPECTIVE JUROR WEISERT: No.

14 THE COURT: Thank you very much. And pass the
15 mic to Juror No. 12.

16 PROSPECTIVE JUROR COURTNEY: I'm Michael
17 Courtney. 45. I live in Janesville, Wisconsin. Born
18 and raised in Milton, Wisconsin.

19 Married with two children.

20 I am a lead CNC programmer for Prent Corporation.
21 My wife works for Van Gelders travel agency as a tour
22 planner.

23 No military service.

24 Attended U.W.-Whitewater for two years,
25 pre-engineering.

1 Membership in a 12-person whiskey bottle club.

2 And I curl for a hobby, ice curling.

3 Favorite types of reading material used to be
4 science fiction, fantasy. Don't really dab in that too
5 much anymore.

6 We DVR like four different TV shows and we get to
7 them eventually. Mostly comedy.

8 Bumper stickers: Only have my bottle club
9 membership sticker and hockey sticker. That's about it.

10 THE COURT: Your programming work in -- is it a
11 large print company or smaller one?

12 PROSPECTIVE JUROR COURTNEY: It's for a
13 packaging -- we do thermoforming packaging.

14 THE COURT: All right. So you're dealing with
15 the computer modeling or the creation of the
16 instructions to the machine. Is that fair?

17 PROSPECTIVE JUROR COURTNEY: Yeah. Basically
18 we use software to create CNC tool paths, set it up on
19 the CNCs and create the parts there.

20 THE COURT: All right. Obviously part of this
21 case is going to be about software. Do you have any
22 concerns that your own experience may get in the way of
23 your ability to listen closely to the evidence as
24 presented and decide based on that evidence?

25 PROSPECTIVE JUROR COURTNEY: I don't know if

1 now is the time, but I do have a concern. Am I exempt
2 from nondisclosure agreements here?

3 THE COURT: You would be subject to some
4 disclosure obligation that I would instruct the jury on
5 as a whole. If what you're asking is can I disclose
6 something now that would otherwise be subject to
7 confidentiality, we'll do that at sidebar. Do you think
8 there is something you need to disclose?

9 PROSPECTIVE JUROR COURTNEY: Maybe.

10 THE COURT: Why don't we do that now. It will
11 just take a moment, if you could step down and just come
12 over to the far corner of the courtroom. And counsel
13 may join me.

14 (Discussion at sidebar at 10:12 a.m.)

15 THE COURT: This won't be heard by others as
16 long as you speak into this mic.

17 PROSPECTIVE JUROR COURTNEY: As long as I speak
18 in it?

19 THE COURT: Into it, yeah. Can you tell me
20 what -- you obviously think there's something maybe
21 relevant by virtue of the work you've done; is that
22 right?

23 PROSPECTIVE JUROR COURTNEY: Correct.

24 THE COURT: I will instruct you that you are
25 obligated to answer truthfully relevant information to

1 assist the parties here in deciding whether you could be
2 impartial. So to the extent that you feel bound by some
3 obligation, this portion of the record will be put under
4 seal. It would only be available for use by the parties
5 during the course of trial and we will keep it
6 confidential or on appeal.

7 (Herein begins sealed portion of transcript.)
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(Herein ends sealed portion of transcript.)

THE COURT: I'm just going to ask you to go back then at this point. Thank you.

(End of sidebar discussion at 10:15 a.m.)

THE COURT: And we will then move to Juror No. 11.

PROSPECTIVE JUROR BURNS: Hi. I'm Brianna Burns. I'm 28 years old. I currently live in Sun Prairie, but I was born and raised in Madison.

I'm single. I do have a 5-year-old daughter.

I work in customer service at WPS Health Insurance. I've been there for eight years.

No military service.

I'm currently also a full-time student at MATC for supervisory management. I do intend to get my bachelor's from U.W.-Madison or another U.W. school next year.

I'm a member of Phi Beta Kappa and I also run a women's Bible study group. Not a lot of leisure time, so most of that is spent with my daughter. Reading is mostly textbooks these days or my Bible study book.

Don't watch a lot of TV.

I do have a Badger bumper sticker and 102.5 bumper sticker.

1 THE COURT: I will ask others about this more
2 generally, but I haven't done it. But because you have
3 a Badger sticker on your bumper, the University of
4 Wisconsin, both because the inventors were either
5 working there or going to school there, as well as the
6 fact that WARF gets inventions from the University of
7 Wisconsin system may influence some members of the jury
8 panel. Do you think that you would consider that and
9 that you might favor WARF, Wisconsin Alumni Research
10 Foundation, over Apple in this case? Is that a concern
11 to you?

12 PROSPECTIVE JUROR BURNS: I don't think so.
13 Obviously I grew up in Madison so I'm a fan of U.W.
14 system schools. But I also use a lot of Apple products,
15 so I think I favor both.

16 THE COURT: And that's fair. I will instruct
17 all of you, I'll come back to this for everyone, but to
18 think about whether you have a sense of affiliation,
19 whether to Apple or to University of Wisconsin, that
20 might influence your ability to be impartial and to just
21 be honest about that with yourself and with the parties.

22 Thank you. You may sit down. And we'll go to
23 Juror No. 10.

24 PROSPECTIVE JUROR POTHOF: Hi. My name is Jeff
25 Pothof. I'm 37 years old and I grew up in Randolph,

1 Wisconsin, a little town about 40 miles north of
2 Madison. Currently I live in Waunakee, Wisconsin.

3 I'm married to my wife. We have two children, a
4 four-year-old, and an 18-month old.

5 Current occupation: I'm currently a faculty
6 physician at the University of Wisconsin Hospital on the
7 Department of Emergency Medicine; serve as the vice
8 chair of quality and operations for the department.
9 Also have a small appointment with the William S.
10 Middleton Veterans Hospital as their interim VA Service
11 Chief of Emergency Medicine. And also I function as a
12 flight physician for the University of Wisconsin Med
13 Flight.

14 No military service.

15 My wife is in elementary education. She currently
16 stays home with the children; has her master's in school
17 counseling and did a little bit of school counseling in
18 the DeForest School District a couple years ago.

19 As far as my education, I went to undergrad at
20 Edgewood College here in Madison; obtained my MD from
21 the University of Wisconsin School of Medicine in public
22 health. Did my specialty training in emergency medicine
23 at the University of Michigan Health System in Ann
24 Arbor, Michigan, and while there did a brief scholarship
25 program in health care administration.

1 I'm a member of the American College of Emergency
2 Physicians; serve on a couple of their committees, both
3 their quality and performance committee, and then also a
4 chair elective there, quality improvement and patient
5 safety section. So do some work with like quality and
6 health care.

7 As far as leisure activities in the small bit of
8 time I have left, I like to get outside, do hunting,
9 fishing, boating, hang out with the girls, and things
10 like that. Don't spend a lot of time watching t.v., but
11 the wife and I are trying to get through Game of
12 Thrones.

13 And I don't have any bumper stickers and I don't
14 call in to radio shows.

15 THE COURT: Let me just ask you a little bit.
16 Do you have an understanding of the current relationship
17 between the University of Wisconsin Hospital and Clinics
18 and the University of Wisconsin?

19 PROSPECTIVE JUROR POTHOF: So --

20 THE COURT: It changed.

21 PROSPECTIVE JUROR POTHOF: -- it just changed.
22 Essentially as it pertained to me, the hospital was
23 separate. We were both --

24 THE COURT: I'm just asking about you have a
25 general understanding.

1 PROSPECTIVE JUROR POTHOF: I have a general
2 idea of how it was and how it's going to be.

3 THE COURT: So it's a little less closely
4 affiliated. Certainly it's different in terms of your
5 employer.

6 PROSPECTIVE JUROR POTHOF: Right.

7 THE COURT: Do you have -- you graduated from
8 the U.W. Do you have any concerns about your ability to
9 be impartial to both sides here; in other words, not to
10 come with any sense that you would like an outcome
11 favorable to the University of Wisconsin system?

12 PROSPECTIVE JUROR POTHOF: Sure. I think not.
13 I mean it's a big university. I've had nothing at all
14 to do with WARF.

15 THE COURT: All right. And that's what was
16 going to be my next question. Have you ever been
17 involved in any kind of patenting of an idea or
18 protection of intellectual property for the University?

19 PROSPECTIVE JUROR POTHOF: No, nothing like
20 that at all.

21 THE COURT: Or for the hospital.

22 PROSPECTIVE JUROR POTHOF: Nothing.

23 THE COURT: Thank you very much. And we'll go
24 to Juror No. 9.

25 PROSPECTIVE JUROR LYNCH: My name is Courtney

1 Lynch. I'm 38 years old and I reside in Janesville,
2 Wisconsin. I was born and raised in Schofield,
3 Wisconsin, which is just outside of Wausau. I've been
4 married for ten years with no children.

5 I am currently an inside sales supervisor with nine
6 people for two different companies. My husband is a
7 warehouse worker for a dairy supply company.

8 No military service.

9 I have a bachelor's degree in psychology from the
10 University of Wisconsin-Whitewater. In January I will
11 be returning to Whitewater for a degree in HR. I took
12 two classes online through University of
13 Wisconsin-Madison for library science a few years ago.

14 I'm a member of a book club and a red hat
15 organization.

16 My hobbies are mostly reading and sports.

17 I enjoy true crime and all kinds of mystery novels.

18 Favorite types of TV shows is also the NCIS,
19 Criminal Minds-type shows. All kinds of movies. Lots
20 of different music. And we are season ticket holders
21 for the Badgers.

22 THE COURT: Inside sales meaning that you deal
23 with the people who go out into the field to make sales?

24 PROSPECTIVE JUROR LYNCH: No. My sellers stay
25 inside and they just make a high volume of outbound

1 calls to our existing catalogue customers.

2 THE COURT: I'm with you now. And you
3 supervise what it is they're doing.

4 PROSPECTIVE JUROR LYNCH: Yep. I make sure
5 that they're hitting their call metrics, they're
6 following the objectives we set forth for the calls that
7 they're making.

8 THE COURT: All right. And do you work with
9 software substantially in that role?

10 PROSPECTIVE JUROR LYNCH: We have an operating
11 system that we use every day.

12 THE COURT: But it's mainly just entering data
13 into it.

14 PROSPECTIVE JUROR LYNCH: Yeah.

15 THE COURT: You wouldn't be involved in
16 following up or modifying the software.

17 PROSPECTIVE JUROR LYNCH: I sort of am involved
18 in that process.

19 THE COURT: In a small company you can have
20 lots of roles.

21 PROSPECTIVE JUROR LYNCH: It's a new system to
22 us and so we're involved in making -- if this doesn't
23 work, let's fix it. I have done some testing.

24 THE COURT: Sure. In that capacity, you've
25 seen probably both the strengths and weaknesses of

1 software. Do you think you can set any preconceived
2 notions about that aside and listen to the evidence as
3 presented in this courtroom and make a decision based on
4 the evidence in the courtroom?

5 PROSPECTIVE JUROR LYNCH: Yes.

6 THE COURT: All right. You say that fairly
7 confidently. You don't have any reason to think
8 otherwise.

9 PROSPECTIVE JUROR LYNCH: No.

10 THE COURT: All right. Good. You may be
11 seated. Thank you very much. And I'm now going to ask
12 some questions that are specific to the box. I would
13 really stress for Members of the Jury -- and if you're
14 not a Member of the Jury, you shouldn't be sitting in
15 the left corner of the courtroom. But I would ask for
16 you who are Members of the Jury if you could keep in
17 mind the questions that I asked. Try to remember if you
18 would have answered yes or raised your hand with respect
19 to a question, because if you're called forward, while I
20 will try to assist you, it's very helpful if you keep in
21 mind questions that came up that would have applied to
22 you.

23 Now, for people who are in the jury box at this
24 moment, my questions originally will just go to your own
25 court experience. How many of you have been a party to

1 a lawsuit, either a plaintiff or a defendant in a
2 lawsuit? If that applies to you, just raise your hand.
3 (No response.) Thank you.

4 How many of you have ever been a witness to a
5 lawsuit? That would include having your deposition
6 taken as part of a lawsuit. I see one hand. Why don't
7 we -- I don't know how close the mic is to you, but
8 Juror No. 10. Was this in relation to your work in the
9 emergency area?

10 PROSPECTIVE JUROR POTHOF: Yes. It was back in
11 Ann Harbor, Michigan, where I was an expert witness for
12 a couple cases that were taken to trial.

13 THE COURT: Okay. So this didn't involve any
14 of your -- you weren't a fact witness, you were an
15 expert witness.

16 PROSPECTIVE JUROR POTHOF: Correct.

17 THE COURT: And in that capacity, you were
18 retained by a party to a lawsuit?

19 PROSPECTIVE JUROR POTHOF: I think so. I mean
20 they just called me in and had me testify in front of
21 the jury.

22 THE COURT: And you were paid some fee for
23 that.

24 PROSPECTIVE JUROR POTHOF: Small amount of
25 money, yeah.

1 THE COURT: I didn't mean to imply otherwise, I
2 just wanted to know. And in that role, you were given
3 certain information and then developed some opinions, I
4 assume medical opinions.

5 PROSPECTIVE JUROR POTHOF: A lot of it was more
6 the facts pertaining to the case and how the injuries
7 could have occurred, not necessarily an opinion on a
8 specific medical process or something like that.

9 THE COURT: Understood. But it was with
10 respect to your medical judgment as to what injuries may
11 have been caused by the accident or --

12 PROSPECTIVE JUROR POTHOF: Right.

13 THE COURT: All right. And there are going to
14 be experts testifying in this case for both sides. Do
15 you think you can listen to their testimony as given on
16 the stand and not necessarily identify with them, given
17 that you've had the experience? Can you -- you're going
18 to hear both sides, so I guess what I'm really most
19 concerned about is whether you would identify with an
20 individual expert if you felt like their experience was
21 similar to your own.

22 PROSPECTIVE JUROR POTHOF: Yeah, I don't think
23 so. It seems like such a very different topic too. I
24 don't think so. It would be almost completely foreign.

25 THE COURT: All right. Did you actually have

1 your deposition taken in the case that you -- or the
2 cases that you worked on as an expert?

3 PROSPECTIVE JUROR POTHOF: I'm trying to
4 remember. I think for one no, and for the other one I
5 think there was. I remember sitting at a table with a
6 bunch of lawyers.

7 THE COURT: All right. And someone was taking
8 it down as the court reporter is here?

9 PROSPECTIVE JUROR POTHOF: No, it wasn't
10 actually in the courthouse. It was just in some
11 conference room.

12 THE COURT: There wasn't a video or there
13 wasn't a court reporter?

14 PROSPECTIVE JUROR POTHOF: I don't think, just
15 people writing down on notepads.

16 THE COURT: Fair enough. And you never
17 testified at trial.

18 PROSPECTIVE JUROR POTHOF: I testified at trial
19 in one, and I think the other one it was whatever
20 happens before trial.

21 THE COURT: All right. Anything about that
22 experience that you found particularly positive or
23 negative, without going into it?

24 PROSPECTIVE JUROR POTHOF: No. I'd say I'm
25 pretty neutral about the whole thing.

1 THE COURT: And again, you don't think it would
2 have an impact on your ability to weigh the evidence as
3 provided, both the fact witnesses and the expert
4 witnesses who testified at trial; that you understand
5 your obligation is to weigh that evidence and make a
6 decision based on what's presented in the courtroom.

7 PROSPECTIVE JUROR POTHOF: Correct. I don't
8 think I'd be influenced.

9 THE COURT: All right. I didn't see any other
10 hands with respect to being a witness. So let me just
11 ask of the group as a whole how many of you have served
12 previously on a jury? Just raise your hand if you
13 served on a jury before. (No response.) Thank you.

14 These questions are going to be a little bit more
15 pointed. They relate to this case. When I say pointed,
16 I don't mean particularly intrusive. Most of them are
17 not. If you find any question that seems to you
18 something that you personally find intrusive, as you've
19 seen we have the capacity to have a discussion at
20 sidebar with white noise that lets us just make a record
21 of that discussion without sharing it with everyone else
22 and I'm happy to do that with respect to any of these
23 questions if you identify yourself, and at that point
24 you want to discuss it at sidebar, I'm happy to do it.

25 How many of you regularly use a computer? That's

1 pretty much a home run. And how many of you use a
2 computer every day? Every week? So I guess that's a
3 home run at that point.

4 How many of you would say that you read technology
5 magazines or follow technology news or trends? Again, I
6 just ask you to raise your hand if that applies to you.

7 All right. And let me go back to Juror No. 3, if
8 you could pass the mic back. Can you just describe the
9 kinds of technology that you follow. It could be all
10 kinds, which would be fine. When you answered yes to
11 the question or raised your hand, what was it that you
12 were answering yes to?

13 PROSPECTIVE JUROR VAN HORN: I read slash.org,
14 which is a technology website. They bring up any type
15 of tech news. Usually I kind of skip over -- I guess I
16 focus mostly on privacy issues and anything that's
17 happening in space right now.

18 THE COURT: All right. If it were on a
19 specific computer coming out, would that be likely
20 something that would catch your attention?

21 PROSPECTIVE JUROR VAN HORN: I would skip that.

22 THE COURT: Okay. I think I'll stop there then
23 unless there's something about that you think would
24 influence you here. I will admonish everyone on the
25 jury during the course of the trial that's not something

1 you would be able to do. You just simply couldn't look
2 at technology websites. It just wouldn't be
3 appropriate. And would you have a problem with that?

4 PROSPECTIVE JUROR VAN HORN: It would be sad.
5 But no, I would not have a problem.

6 THE COURT: Very good. If you'd pass the mic
7 forward, I think there was one other individual who
8 identified themselves. Thank you. Juror No. 14.

9 PROSPECTIVE JUROR EGGER: I do a lot of online
10 research for automobiles, what's up and coming, the
11 usual magazines: Hot Rod, Car Craft, all of that.

12 THE COURT: Just looking for car trends.

13 PROSPECTIVE JUROR EGGER: Correct.

14 THE COURT: Okay. You probably could continue
15 to do that during this trial, although I'll instruct
16 everyone as to the proper way to think about looking at
17 material. Very good.

18 Was there anyone else who raised their hand? (No
19 response.) Thank you.

20 I'm going to ask you about a number of areas, and
21 some of this you would have already identified during
22 your descriptions of yourselves, but I'm going to just
23 confirm it. Do you or someone close to you have any
24 education, training or work experience in any of the
25 following areas? And I'm just going to mention each one

1 and have you raise your hand if this applies to you.

2 Do you have any education, training or work
3 experience in computer programming? Just raise your
4 hands. I see two hands. I think we have the mic here,
5 so if you pass it straight back. Juror No. 8. And your
6 experience is?

7 PROSPECTIVE JUROR MARTINSON: It isn't mine,
8 just my husband's experience and his education.

9 THE COURT: And you're right to identify that
10 and we've talked a little bit about him as a web
11 developer and computer courses he would have taken.

12 PROSPECTIVE JUROR MARTINSON: Um-hmm.

13 THE COURT: Anything more about that that you
14 think may apply or that would influence you during the
15 course of this trial?

16 PROSPECTIVE JUROR MARTINSON: I guess maybe
17 just his opinions about programming and privacy issues
18 and how technology has developed in the last so many
19 years.

20 THE COURT: It doesn't sound like any of those
21 opinions would apply directly to this case. But do you
22 have concern that they may have some influence on how
23 you think about the technology or your ability to be
24 impartial in deciding the issues that are presented to
25 you here?

1 PROSPECTIVE JUROR MARTINSON: To be honest, I
2 think maybe I would be -- I'd have to clear my mind of
3 maybe thinking a little too much about like Big Brother
4 kind of issues and stuff like that, but I don't
5 necessarily know that that's it.

6 THE COURT: I doubt very much that that will be
7 an issue, but I suppose in the sense that we come ever
8 more capable of moving lots of information and seeing
9 it, I suppose it resonates. In this case, both sides
10 are claiming to have been concerned with advancing that
11 ability, so I don't know that you would fall one or the
12 other.

13 PROSPECTIVE JUROR MARTINSON: Right.

14 THE COURT: But is that a concern to you? Do
15 you think it would influence your ability to listen to
16 the testimony and to weigh it as I instruct you,
17 including as I instruct you on the law?

18 PROSPECTIVE JUROR MARTINSON: No, but it's
19 something that I am concerned about. I'm trying to be
20 honest.

21 THE COURT: Yeah. Which is what you should be
22 doing. If I appear to be anything other than grateful
23 for your raising the issue, each of you should raise any
24 concerns you have at this point. That's fair to the
25 parties and to the system of justice that we're all a

1 part of.

2 But I understand you would have -- you can't help
3 but have concerns about privacy and loss of privacy in
4 our modern culture. What I'm asking is do you have any
5 reason to think, aside from the fact it's going to be in
6 the back of your mind, that it would tip the balance
7 between how you would feel about either side in this
8 case? Or can you be impartial and decide based on the
9 law as I give it to you and the evidence as presented?

10 PROSPECTIVE JUROR MARTINSON: Yes.

11 THE COURT: All right. Thank you. You can
12 pass the mic to your right. And we've talked a little
13 bit with Juror No. 3 about his own background. Anything
14 more you would add to that?

15 PROSPECTIVE JUROR VAN HORN: I started out
16 college as a computer science major, so I don't -- I
17 can't say I can currently program, but I did learn how
18 to program in CE, C++, CORBAL, just the basic.

19 THE COURT: So you have background in those
20 areas.

21 PROSPECTIVE JUROR VAN HORN: Yes.

22 THE COURT: This will go, I think it's fair to
23 say, well beyond that sort of understanding. But it
24 doesn't mean that you won't bring some of that to the
25 table, which may assist you in understanding, but may

1 also get in the way. To the extent that the evidence in
2 the courtroom controls, do you think you'll allow it to
3 do that? In other words, the facts presented here in
4 the courtroom are what control, not your own general
5 understanding of how computer science or programming
6 works.

7 PROSPECTIVE JUROR VAN HORN: I believe so, yes.

8 THE COURT: All right. Is there any hesitation
9 about that?

10 PROSPECTIVE JUROR VAN HORN: I'm trying to
11 think how to put it in words. I don't think there's
12 going to be, but I've been spending the last seven years
13 working with doctors and nurses and management and that
14 group, and trying to explain how programming works to
15 them. And so getting -- and getting feedback back from
16 them how they think it works, and I spend a lot of time
17 summing it down to saying sure, let's go with that as
18 opposed to actually giving them --

19 THE COURT: Really -- they're really --

20 PROSPECTIVE JUROR VAN HORN: Technically that
21 doesn't work that way.

22 THE COURT: Right.

23 PROSPECTIVE JUROR VAN HORN: So I do believe
24 that I can follow feedback, especially from an expert
25 witness or expert testimony or something. But I do take

1 issue at times with it being dumbed down too much.

2 THE COURT: So your concern would be is if they
3 try to make an analogy that you don't think is very
4 accurate, that you may not agree with it.

5 PROSPECTIVE JUROR VAN HORN: Or if someone says
6 that you can't connect to a database when like, well,
7 yeah, you can connect to the database.

8 THE COURT: So you bring that experience. If
9 both sides present evidence and it's consistent; in
10 other words, both sides' experts say this is how it
11 works and it's inconsistent with how you believe it
12 works, you understand your obligation is to weigh the
13 evidence in the courtroom, not bring some background
14 that you have.

15 PROSPECTIVE JUROR VAN HORN: Oh, in that case,
16 totally. I mean if both sides agree, you've got to go
17 with what the expert says even if it --

18 THE COURT: Seems inconsistent with your
19 experience.

20 PROSPECTIVE JUROR VAN HORN: Correct.

21 THE COURT: All right. Why don't you pass the
22 mic to the right. We're talking about computer
23 programming involvement.

24 PROSPECTIVE JUROR PICKERING: Right. I did
25 have a short course at a technical school, a six-week

1 night course on PLC programming. Didn't get in too
2 deep. Did very, very basic stuff, so I really don't
3 understand a whole lot about it.

4 THE COURT: Thank you. Was there anyone else?
5 (No response.)

6 I'm going to ask the same question: This is you or
7 someone close to you have any education, training or
8 work experience in the area of information technology.
9 Anything more than we've already talked about? Juror
10 No. 3.

11 PROSPECTIVE JUROR VAN HORN: No.

12 THE COURT: I would apply that to everyone
13 here. Anything more than what we've already talked
14 about? (No response.) All right. And I don't see any
15 hands.

16 So we're going to go to you or someone close to you
17 having education, training or work experience in
18 microarchitecture. (No response.) I see no hands.

19 The same question. You or someone close to you,
20 education, training or work experience with accounting.
21 As part of your -- well, let's just explore it. If you
22 could pass the mic down to Juror No. 11.

23 PROSPECTIVE JUROR BURNS: I'm in an accounting
24 class currently.

25 THE COURT: Okay. So you're taking accounting,

1 basic accounting. Some of the issues here may be fairly
2 sophisticated accounting. It's the parties' job to make
3 it understandable, but do you have any concern that your
4 limited experience might get in the way of listening to
5 that evidence and deciding on that evidence?

6 PROSPECTIVE JUROR BURNS: No.

7 THE COURT: You can pass the mic then to the
8 far left. And I'll ask the same question of Juror No.
9 14.

10 PROSPECTIVE JUROR EGGER: My wife was in
11 banking for 35 years. She has since retired. Does my
12 budget for home.

13 THE COURT: Anything about that experience
14 would cause you concern about your ability to listen
15 other than she'd be better at following that than you?

16 PROSPECTIVE JUROR EGGER: Correct. No, I don't
17 believe it would make a difference.

18 THE COURT: Very good. The next question is as
19 to training, education or work experience in the law.
20 And obviously Juror No. 8 has already explained her
21 involvement personally. But anyone else have education,
22 training or work experience in the area of law,
23 including someone close to you? (No response.) Thank
24 you.

25 The last area is engineering, and I've heard from a

1 number of people about their own background with
2 engineering. So let me just focus. Other than as
3 you've already described, do you or someone close to you
4 have any education, training or work experience in the
5 area of engineering? (No response.) Thank you.

6 This sort of goes to the whole area of product
7 development and invention. Have you or someone close to
8 you been involved in the development of a new product or
9 invention? Just raise your hand if you or someone close
10 to you has been involved in the development of a new
11 product or invention. Yes, sir.

12 PROSPECTIVE JUROR PICKERING: What we
13 previously discussed.

14 THE COURT: Okay. Anyone else? Juror No. 2 is
15 indicating that we've already discussed your level of
16 involvement. Anyone else? Yes. This has to do with
17 the probiotic -- development of probiotic. Beyond what
18 you already discussed, anything else?

19 PROSPECTIVE JUROR BLANG: Nothing other than
20 that. Just my husband develops -- he's the science guy
21 behind the products.

22 THE COURT: Understood. Was there anyone else?

23 (No response.) All right. I assume by that answer
24 that you or someone close to you -- is there anyone who
25 has personally or someone close to them applied for a

1 patent, been listed as an inventor on a patent
2 application or owned a patent? Raise your hand. I
3 guess we really haven't talked about your own
4 involvement with patents.

5 PROSPECTIVE JUROR PICKERING: I had a close
6 friend that developed a product on his own and had a
7 patent on it, and I think I was a cosigner on it or
8 something like that. And I don't really understand a
9 whole lot about it.

10 THE COURT: Do you know what happened to that
11 patent? Was it ever --

12 PROSPECTIVE JUROR PICKERING: Oh, yeah -- well,
13 that I don't know, if it ever was actually approved or
14 not, but...

15 THE COURT: He applied for one.

16 PROSPECTIVE JUROR PICKERING: Yeah.

17 THE COURT: Very good. Anything about that
18 experience you think would influence your ability to be
19 impartial here?

20 PROSPECTIVE JUROR PICKERING: Not at all.

21 THE COURT: All right. It's a very similar
22 question: Have you or someone close to you had dealings
23 or experience with the United States Patent and
24 Trademark Office? (No response.) Thank you.

25 Has any -- have you or someone close to you been

1 involved in legal action concerning patents? (No
2 response.)

3 This is even more general. Does your employer own
4 patents? If your employer owns a patent, just raise
5 your hand. All right. As far as you know, if you think
6 they may own a patent, raise your hand so I just see
7 everyone's hands up. I see three hands up.

8 Let's go first to Juror No. 10. And I don't know
9 where the mic is.

10 PROSPECTIVE JUROR POTHOF: Just under the
11 assumption that University of Wisconsin Hospitals and
12 Clinic and their associated kind of entities probably
13 own some patents.

14 THE COURT: But you don't know what role they
15 may play in the business and you've had no involvement.

16 PROSPECTIVE JUROR POTHOF: That's correct.

17 THE COURT: Very good. You can pass the mic to
18 your left. Juror No. 12. This has to do with the
19 printing corporation?

20 PROSPECTIVE JUROR COURTNEY: I actually print
21 -- they're a plastic packaging corporation. So their
22 patents deal with designs of packaging.

23 THE COURT: All right. Do you know are the
24 patents a significant part of the business?

25 PROSPECTIVE JUROR COURTNEY: No, they're not.

1 THE COURT: All right. Very good. And you can
2 pass the mic to Juror No. 13.

3 PROSPECTIVE JUROR WEISERT: I work with, not
4 directly with, but with engineers and when we hire
5 people, they have to sign off on a confidentiality and
6 we have a policy that if they would develop --

7 THE COURT: It would be assigned to --

8 PROSPECTIVE JUROR WEISERT: -- a patent and how
9 to approach it, that kind of thing.

10 THE COURT: Have you personally been involved
11 in that at all?

12 PROSPECTIVE JUROR WEISERT: Nope.

13 THE COURT: Do you know how important patents
14 are to the business as a whole?

15 PROSPECTIVE JUROR WEISERT: I would imagine it
16 is important, but I --

17 THE COURT: You have no personal knowledge.

18 PROSPECTIVE JUROR WEISERT: Right.

19 THE COURT: Does anyone here -- and this is a
20 very general question, so I'd ask you to think about it.
21 Does anyone in this group have strong opinions, whether
22 negative or positive, about patents generally or the
23 American patent system specifically? So strong views,
24 positive or negative, about patents generally or the
25 patent system specifically. (No response.) Thank you.

1 Does anyone have a strong opinion, whether positive
2 -- I'm sorry, we do have a hand up. I apologize. And I
3 appreciate your holding it up and calling it. If at
4 least the court security officer is good enough to see
5 it, we'll be fine.

6 PROSPECTIVE JUROR VAN HORN: Sorry to keep
7 taking the mic.

8 THE COURT: No, no, no. It's understandable.
9 You have opinions. Would you say they're positive,
10 negative, or having to do with privacy issues that you
11 talked about before?

12 PROSPECTIVE JUROR VAN HORN: I think they're
13 too long personally.

14 THE COURT: The patents themselves, how the
15 descriptions are too long?

16 PROSPECTIVE JUROR VAN HORN: No, the extent of
17 time they're given are too long.

18 THE COURT: Okay. In the United States, the
19 length of the patent life is too long.

20 PROSPECTIVE JUROR VAN HORN: Right.

21 THE COURT: Would that influence you, do you
22 think, in deciding the issues in this case?

23 PROSPECTIVE JUROR VAN HORN: No. Because it's
24 over a patent that already exists.

25 THE COURT: And it is the law.

1 PROSPECTIVE JUROR VAN HORN: Correct.

2 THE COURT: And you understand your obligation
3 would be to follow that as I instructed it.

4 PROSPECTIVE JUROR VAN HORN: Absolutely.

5 THE COURT: Was there anyone else who had
6 raised their hand? (No response.)

7 I'm going to ask a similar kind of broad question.
8 I'd ask you to think about it. Does anyone have a
9 strong opinion, whether positive or negative, about
10 large corporations? So the very fact that they are
11 large, positive or negative. (No response.) Thank you.

12 Should the evidence support it, would anyone have
13 any difficulty finding a patent valid or awarding
14 substantial monetary damages in this case if the
15 evidence supported it? Again, raise your hand. (No
16 response.)

17 Similarly should the evidence support it, would
18 anyone have any difficulty in finding a patent invalid
19 or in awarding zero damages? Again, raise your hand.
20 (No response.)

21 Thank you. At this time it's Juror No. 4,
22 Ms. Colstad, is it? I'm going to excuse you and ask you
23 to sit at the back of the courtroom and we're going to
24 call forward another juror. I would have done it
25 sooner, but I never know until we go through the voir

1 dire process which way it's going to turn.

2 THE CLERK: Taking her seat will be Michael
3 Benesh.

4 (Prospective Juror Colstad excused at 10:44 a.m.)

5 THE COURT: Mr. Benesh, I'd ask you to come
6 forward and sit in Ms. Colstad's seat. Unfortunately
7 that means you have to negotiate your way through a
8 little bit. It's unusual to get this far without having
9 a few people identified, which may be my fault, or it
10 may be that the matter is as straightforward as it
11 appears to the parties. So I'm going to unfortunately
12 ask you to stand right away and introduce yourself. If
13 someone could give you the sheet of paper, that would be
14 helpful. Thank you very much.

15 PROSPECTIVE JUROR BENESH: I'm Michael Benesh.
16 I'm 63 years old. I live in Madison. I was born in
17 La Crosse, Wisconsin. Raised in Portage, Wisconsin.

18 I'm married with one child.

19 My occupation, I'm a business manager at a Catholic
20 church here in town. My spouse is an IT director at an
21 insurance company here in town.

22 I have no military service.

23 I'm a graduate of accounting at University of
24 Wisconsin-Whitewater.

25 Membership, organizations: None.

1 Hobbies: I'm a bicyclist and a motorcycle rider.
2 I enjoy all kinds of sports.

3 Favorite type of reading material: Sci-fi.

4 Television shows are Game of Thrones. Mini series
5 on some of the premium channels.

6 And I have a Harley Davidson bumper sticker.

7 THE COURT: And I realize this is a difficult
8 thing because we have covered so much ground, but in the
9 course of the ground that I did cover, do you
10 specifically remember anything that you would have
11 raised your hand for?

12 PROSPECTIVE JUROR BENESH: Just obviously I
13 have an accounting background. My degree is in
14 accounting.

15 THE COURT: All right. And do you think that
16 that would get in the way of your ability to listen to
17 the experts here and to weigh the evidence?

18 PROSPECTIVE JUROR BENESH: Not at all.

19 THE COURT: You say not at all because? You
20 think you can listen fairly to the evidence that's
21 presented.

22 PROSPECTIVE JUROR BENESH: Yes.

23 THE COURT: All right. You mentioned your wife
24 was involved as an IT director at an insurance company.
25 Can you name the insurance company?

1 PROSPECTIVE JUROR BENESH: Sentry Insurance.

2 THE COURT: Has she got a supervisory role in
3 IT or is she one of a number of people doing IT work
4 there?

5 PROSPECTIVE JUROR BENESH: She's in a
6 supervisory role.

7 THE COURT: All right. Do you know how many
8 people she supervises?

9 PROSPECTIVE JUROR BENESH: It's varied over
10 time. It's probably at ten or so.

11 THE COURT: All right. And is there a specific
12 area of the intellectual technology, the business that
13 she's responsible for?

14 PROSPECTIVE JUROR BENESH: Just to support the
15 architecture of the IT information that would go forward
16 to support the agents and qualifying people for the
17 insurance.

18 THE COURT: So is it mainly on the business
19 side or the actuarial side or both?

20 PROSPECTIVE JUROR BENESH: Probably on the
21 business side.

22 THE COURT: All right. Is there anything about
23 how she has described her job or the challenges in her
24 job that you think may make it more difficult for you to
25 be impartial to both sides here?

1 PROSPECTIVE JUROR BENESH: Not at all.

2 THE COURT: All right. Let me mention a few
3 things. Have you ever been a party to a lawsuit, a
4 witness in a lawsuit or on a jury?

5 PROSPECTIVE JUROR BENESH: I've been called to
6 jury, but never been on a jury.

7 THE COURT: All right. And so did you go
8 through the selection process like this?

9 PROSPECTIVE JUROR BENESH: Yes.

10 THE COURT: Anything about that experience that
11 you found particularly negative or positive?

12 PROSPECTIVE JUROR BENESH: No.

13 THE COURT: Other than being called out at the
14 last minute to introduce yourself.

15 PROSPECTIVE JUROR BENESH: No.

16 THE COURT: Have you -- I assume you regularly
17 use a computer in your business.

18 PROSPECTIVE JUROR BENESH: Yes.

19 THE COURT: All right. I just realized I
20 skipped over a question for the parties. So for this
21 group as a whole, do you regularly use a so-called
22 smartphone? How many of the members here use a
23 so-called smartphone? I see all but a few hands.

24 How many of you would use that smartphone every
25 day?

1 Very good. From what you said, probably not having
2 regular -- do you spend a lot of time with technology
3 news or technology magazines?

4 PROSPECTIVE JUROR BENESH: No.

5 THE COURT: Your wife's training I assume was
6 in information technology?

7 PROSPECTIVE JUROR BENESH: Retail management.

8 THE COURT: Okay. And then she developed this
9 expertise on the job. What was her background and
10 education? High school? College?

11 PROSPECTIVE JUROR BENESH: Technical school.

12 THE COURT: Very good. And was it in the area
13 of information or just retail management?

14 PROSPECTIVE JUROR BENESH: Retail management.

15 THE COURT: Anyone close to you or yourself
16 have a background in engineering?

17 PROSPECTIVE JUROR BENESH: Yeah, I have several
18 friends that are engineers.

19 THE COURT: Have you ever talked to them about
20 patenting of intellectual property?

21 PROSPECTIVE JUROR BENESH: No.

22 THE COURT: What sorts of engineering do they
23 do?

24 PROSPECTIVE JUROR BENESH: Electrical
25 engineering. Mechanical engineering.

1 THE COURT: Very good. Anyone close to you or
2 yourself involved in the development of new products or
3 inventions, applications for patents or have experience
4 dealing with the United States Patent and Trademark
5 Office?

6 PROSPECTIVE JUROR BENESH: No.

7 THE COURT: Do you have strong opinions,
8 negative or positive, about patents generally or the
9 American patent system?

10 PROSPECTIVE JUROR BENESH: No.

11 THE COURT: All right. And should the evidence
12 -- well, let me ask the same: Strong opinions, positive
13 or negative, about large corporations?

14 PROSPECTIVE JUROR BENESH: No.

15 THE COURT: And should the evidence support it,
16 would you have any difficulty finding a patent valid or
17 awarding substantial monetary damages for infringement
18 of a patent?

19 PROSPECTIVE JUROR BENESH: No.

20 THE COURT: Similarly would you have trouble if
21 the evidence supported it to find a patent invalid or
22 awarding zero damages?

23 PROSPECTIVE JUROR BENESH: No.

24 THE COURT: You may be seated, and thank you
25 very much for your patience with me.

1 I mentioned to a couple of people as we went
2 through this that it's fair to say that WARF, as the
3 plaintiff, is affiliated with the University of
4 Wisconsin system, and you'll hear more about that during
5 the course of the trial. I want you to think about
6 that, as well as many of you who use and have mentioned
7 that they use Apple products or use other computer
8 technology or otherwise.

9 Keeping both of those things in mind if it applies
10 to you, at the end of this case I am going to give you
11 instructions that will govern your deliberations. You
12 are required to follow those instructions, even if you
13 do not agree with them. Is there any one of you who
14 would be unable or unwilling to follow my instructions
15 on the law? (No response.)

16 I am going to ask some very specific, and I suspect
17 I know the answer, but does anyone on the panel -- in
18 this group of 14, do any of you own Apple stock? Raise
19 your hand if you do. (No response.) Very good.

20 Then finally, do you -- I'm talking to each of you
21 to think back on what we discussed and also what you've
22 heard during the course of the morning. Do you know of
23 any reason whatsoever why you could not sit as a trial
24 juror with absolute impartiality to both parties in this
25 case? I see one hand. Was there anyone else?

1 All right. I'm going to ask Juror No. 9, if you'd
2 come to sidebar.

3 (Discussion at sidebar at 10:55 a.m.)

4 THE COURT: If you could just -- we'll wait a
5 second. But if you could speak right into this mic. It
6 will pick it up. You don't have to yell. You said you
7 are concerned about your ability to be impartial. Can
8 you tell me generally why?

9 PROSPECTIVE JUROR LYNCH: I hate Apple.

10 THE COURT: Well, I guess that simplifies that.

11 PROSPECTIVE JUROR LYNCH: Everything about it.
12 To be fair --

13 THE COURT: You can stop. You can stop. I'm
14 really glad that you mentioned it and the only reason
15 I'm stopping you is just in the off chance that anyone
16 else would overhear you. You've made your point clearly
17 enough.

18 I'm going to dismiss you at this time. I'd ask you
19 to just go to the back of the courtroom where
20 Ms. Colstad is sitting already, so back in that left
21 corner, and we'll come forward another witness.

22 Since I have counsel here, I'm going to ask you to
23 stay for a moment. You may step down.

24 (Prospective Juror Lynch excused.)

25 THE COURT: I feel as though there were a

1 couple questions, including the stock ownership, that
2 didn't get picked up in my last version of the draft. I
3 suspect that's because the last version wasn't put in my
4 binder, which is very unusual. I apologize.

5 MR. CHU: So if you look at what I had as
6 Question 4, an example is 4C: Have you ever purchased
7 or used a product made by Apple, products including
8 computers --

9 THE COURT: Yes.

10 MR. CHU: -- iPhones, and iPads.

11 THE COURT: It should have been in this. I
12 realized it only as I was getting through later on that
13 I hadn't asked questions that I had indicated I would.
14 Could I bother, so we're not delayed, if I could have it
15 from one of you? The two questions it appears are the
16 last two?

17 MR. LEE: I actually think, Your Honor, it's B,
18 C, and D.

19 THE COURT: I appreciate that and I apologize
20 for that. Since I have you here, were there any other
21 issues that you believe should be raised?

22 MR. CHU: Yes.

23 MR. LEE: Go ahead.

24 MR. CHU: With Michael Courtney, who is in seat
25 No. 12. He was sidebarred. He said that, his words, he

1 "had a vested interest" because of the relationship with
2 a branch of his company.

3 THE COURT: Yes. So that's a movement for
4 cause.

5 MR. CHU: Yes. And second, he also I thought
6 said that he is a programmer, in response to an earlier
7 question. In response to a later question where it was
8 are you a computer programmer, he did not raise his name
9 -- his hand. And the cause concern is if he hears that
10 it's hundreds of millions of dollars if we get to the
11 damages --

12 THE COURT: I'm not going to dismiss him on the
13 latter basis, but I do think there's some question as to
14 his company having something of a vested interest. I
15 will tell you that I think it was not -- it did not
16 appear to me to be significant. All of this is
17 subjective. So I'm not going to dismiss him for cause,
18 particularly because it was clear in talking with him at
19 sidebar that the impact on his company would be
20 marginal. It's not at all clear that the outcome of
21 this trial would have any impact on his company. So I
22 didn't get a sense that there was any real likelihood of
23 him being -- his impartiality being impacted. So I'm
24 going to deny that.

25 Was there something else?

1 MR. CHU: Yes. Mr. Van Horn, who is in seat
2 No. 3, the question that was asked, do you have any
3 strong opinions about the patent system, and he
4 immediately said too long. Although he also said in
5 response to Your Honor's question that he would follow
6 your instructions and I'm -- put in the context of a
7 strong opinion where he's just saying it's too long, and
8 adding the context of this particular case, the amounts
9 involved and the like.

10 THE COURT: Again, I'm not going to strike him.
11 It's a closer call for me because he also has the most
12 involvement with IT, and so it's a close question. I'll
13 tell you what I will do is I will follow up with him
14 briefly to make sure that his views are such that there
15 -- it doesn't likely get in his way. He raised a number
16 of issues, including privacy issues and others, so I
17 would at least follow up to assure myself. But at this
18 point I'm not going to strike him.

19 MR. CHU: Could I just share with Your Honor
20 that I think many lawyers, as well as people who are
21 involved in programming and software, many lawyers
22 realize that people who are involved in software
23 programming --

24 THE COURT: I'm aware of the controversy over
25 the software and the tendency of people in software to

1 think the patents are too long. I myself may share
2 that, but I'm not going to change my rulings in this
3 case because of it. So unless there's something
4 specific to this witness, you don't need to remind me of
5 the issues.

6 MR. CHU: There isn't.

7 THE COURT: Anything more for you, sir?

8 MR. LEE: Your Honor, two things. On Juror No.
9 10, he's a faculty member. He both has an appointment
10 at the hospital and is on the faculty. So he's
11 literally on the same faculty as at least Professor
12 Sohi. And we understand there's a lot of people with
13 U.W. affiliations, but being on the same faculty as a
14 witness, given the WARF/Madison relationship, we think
15 we would move to dismiss him for cause.

16 And I have one other that was just to ask Your
17 Honor to ask a followup question.

18 THE COURT: Yes.

19 MR. LEE: It's on Juror No. 8. Her husband
20 went to --

21 THE REPORTER: I'm sorry, I've lost the sound.

22 THE COURT: Testing, testing.

23 MR. LEE: I don't want to speak too loud.

24 THE COURT: No, no. You're fine. She
25 literally lost the sound for some reason.

1 MR. LEE: Her husband took computer programming
2 or computer engineering classes at U.W. Madison. So I
3 think if we could just find out a little bit more about
4 what department and if we have some --

5 THE COURT: I'm sorry, which juror is this?
6 14?

7 MR. LEE: Juror No. 8. It's the woman who was
8 the --

9 THE COURT: I'm sorry? The lawyer?

10 MR. LEE: Juror No. 8.

11 THE COURT: Okay. I'm with you now.

12 MR. LEE: And it's a collection of things.

13 THE COURT: Her husband --

14 MR. LEE: Her husband is a computer -- he's a
15 web developer.

16 THE COURT: Right, right. And I thought I had
17 explored that with her. What else did you want to add?

18 MR. LEE: When she came back, she said he took
19 his courses in computer science at University of
20 Wisconsin-Madison. Just a little bit more information,
21 if she knows with whom. Because if it was Professor
22 Sohi, I would like to know that. Probably more me than
23 you.

24 MR. CHU: I would want to know.

25 THE COURT: Anything more then, gentlemen?

1 MR. LEE: No.

2 THE COURT: I will follow up with these
3 questions. I will explore with Juror No. 13 and 10
4 their possible biases or ability to be impartial, and
5 then Ms. Martinson's husband's role. Just so we're
6 clear, unless there is a request, we won't have a
7 further sidebar, we will go then forward. But I may, if
8 I do have to excuse, you'll need to advise me if you
9 have a concern with respect to my voir dire of either of
10 the people called forward to replace them.

11 MR. CHU: Yes. Thank you, Your Honor.

12 (End of sidebar discussion at 11:01 a.m.)

13 THE COURT: I apologize for that delay. Before
14 I call forward an additional witness -- additional
15 juror, let me just ask a couple of followup questions.
16 First with respect to Juror No. 10, Mr. Pothof. Some of
17 the witnesses may be or will be affiliated with the
18 University of Wisconsin-Madison, so effectively although
19 I guess -- do you view yourself as a member of the
20 faculty? Do you teach courses on emergency medicine or
21 otherwise while at the University of Wisconsin Medical
22 School?

23 PROSPECTIVE JUROR POTHOF: Yes. I don't do a
24 lot of medical student teaching, but I do do some. And
25 then mostly resident teaching within our own department.

1 Nothing undergrad though.

2 THE COURT: The only concern being that since
3 some of the people testifying could be members of the
4 same faculty. Is that an area of concern for you? Do
5 you think that might influence or cause you to identify
6 with that witness, particularly an expert witness?

7 PROSPECTIVE JUROR POTHOF: I wouldn't think so
8 unless it was someone who I knew personally, but I can't
9 imagine it would be anyone I know personally.

10 THE COURT: And you say that even though you're
11 part of the same faculty why?

12 PROSPECTIVE JUROR POTHOF: Because it's a big
13 enough university where even though faculty of the
14 University, I think the University somewhat segregates
15 itself out as far as people involved with medicine I
16 probably have a closer affiliation with versus an
17 engineering school or college of computer science or
18 whatever else. So although I am faculty, I see myself
19 more as part of the medical campus more so than any
20 other part of the University.

21 THE COURT: And you don't think that you would
22 weigh someone from another part of the University of
23 Wisconsin system versus a faculty member from another
24 University?

25 PROSPECTIVE JUROR POTHOF: Not outside of

1 Madison. Madison I think it would be harder. But if
2 it's not Madison, then no.

3 THE COURT: If you could be so good as to pass
4 the mic straight back. I have a sort of similar just
5 followup. And that is to say you did express not just
6 that you had an opinion that patents were too long, but
7 you expressed a strong opinion that they were too long.
8 Without getting into the specifics, have you had
9 experiences with respect to software patents where you
10 felt like they were impeding progress or is that -- did
11 it derive from a general sense or from a specific sense
12 with respect to software? Without getting into the
13 specifics.

14 PROSPECTIVE JUROR VAN HORN: It involved trying
15 to get access to old Nintendo video games.

16 THE COURT: Okay. So it was really from your
17 gaming experience.

18 PROSPECTIVE JUROR VAN HORN: Correct.

19 THE COURT: Which is understandable. You said
20 you were a gamer so it's only fair. My question really
21 goes to since you say you have a strong opinion about
22 it, whether you think that might influence how you view
23 the strength of an individual patent as will be
24 presented here. In other words, since you don't think
25 as a general matter patents should be enforced as long

1 as they are, I take it that's your concern. Do you
2 think it could undermine your ability to be impartial in
3 deciding the validity of this patent or a claim of
4 infringement under this patent?

5 PROSPECTIVE JUROR VAN HORN: I don't think it
6 will be a problem. My biggest concern is -- I would
7 refer to them as abandoned patents where it's still on a
8 video game and you have no legal method of playing.

9 THE COURT: Of still getting the product.

10 PROSPECTIVE JUROR VAN HORN: Correct.

11 THE COURT: Understand. All right. I believe
12 the only other area was for Juror No. 8, Ms. Martinson.
13 Do you know what courses your husband actually took at
14 the University of Wisconsin-Madison and who it was that
15 taught the courses?

16 PROSPECTIVE JUROR MARTINSON: For his undergrad
17 he did journalism, so it was all at MATC that he did
18 his --

19 THE COURT: All right. But he has subsequently
20 taken some courses at the U.W. Madison; right?

21 PROSPECTIVE JUROR MARTINSON: No. He did his
22 undergrad there and then moved to -- he did his
23 undergrad, graduated, and then later went back to school
24 for web development.

25 THE COURT: And where did he do that?

1 PROSPECTIVE JUROR MARTINSON: Madison Technical
2 College.

3 THE COURT: Madison College I guess they like
4 to call themselves.

5 PROSPECTIVE JUROR MARTINSON: Yes, right.

6 THE COURT: Then we'll call forward one more
7 witness and we will be -- we'll be going forward to
8 selection shortly. Was there something more for one of
9 the juror members? If we could call forward the next
10 member of our jury panel.

11 THE CLERK: Taking the seat of Ms. Lynch in the
12 front row will be Carol Michalski.

13 THE COURT: While she is coming forward, I am
14 going to ask a general question of the entire panel.
15 And these are questions that had been modified and I was
16 working off an older version. I apologize for this.
17 But they're all sort of subsumed in questions I've asked
18 already. But please raise your hand if this would apply
19 to you.

20 Does anyone have a particularly strong opinion,
21 whether positive or negative, or affinity about the
22 University of Wisconsin, and specifically with the
23 University of Wisconsin-Madison, whether based on the
24 fact that you or someone are close there, attended
25 there, or because you are or were employed by the

1 University of Wisconsin or otherwise? So in other
2 words, if you have a particularly strong opinion,
3 positive or negative, towards the University of
4 Wisconsin system and particularly University of
5 Wisconsin-Madison, would you raise your hand. (No
6 response.)

7 Now, if I said you have a particularly strong
8 opinion about the University of Wisconsin Badgers, maybe
9 I would get some hands. But there isn't anyone who
10 feels so strongly or has such a strong positive or
11 negative view of the University of Wisconsin you think
12 it would impact your ability to be impartial here.
13 That's what I'm understanding. If that's not true, you
14 should raise your hand. (No response.) Thank you.

15 I think I've already asked this, but I'm going to
16 be certain. Have you ever purchased or used a product
17 made by Apple? Raise your hand if this applies to you.
18 All right. All but two.

19 For those of you who raised your hand, did those
20 products include a computer? So an iPad. All right.
21 Did those products include an iPhone? I said a
22 computer. Probably iPads might be viewed differently.
23 Was there anyone who owned another Apple computer other
24 than an iPad or an iPhone? All right.

25 And were those all basically stand-alone computers

1 that you used at a computer station? Just raise your
2 hand -- actually for those who raised their hand with
3 respect to owning other than an iPad or an iPhone, that
4 owned an Apple computer, could you just describe what it
5 was generally? We'll start at this end. Juror No. 1.

6 PROSPECTIVE JUROR BETTENHAUSEN: A Mac laptop.

7 PROSPECTIVE JUROR POTHOF: Just a laptop.

8 THE COURT: Anyone else who was not a laptop?
9 (No response.) All right. Thank you.

10 Then finally, does anyone have a strong opinion,
11 whether positive or negative, about Apple, the company,
12 whether based on ownership of stock, use of its product
13 or otherwise? Again, just raise your hand if this
14 applies to you. (No response.) Thank you.

15 Then we are going to hear from our new Juror No. 9.
16 If you could stand and introduce yourself.

17 PROSPECTIVE JUROR MICHALSKI: I'm Carol
18 Michalski. I'm 66. I was born and raised in Madison.

19 I went to the University of Wisconsin and majored
20 in phy-ed and math and am a retired teacher at this
21 point.

22 I am married and have three children.

23 No military.

24 Undergrad. My husband is a mechanical engineer
25 with a master's degree.

1 I do a lot of sports. I read a lot of mystery and
2 current popular books.

3 I like my medical shows on TV.

4 I don't have any bumper stickers. I don't call in,
5 write in, any of those kind of things.

6 THE COURT: Very good. Let me ask you -- well,
7 I guess first, do you know if your husband had ever been
8 involved in any kind of patenting project?

9 PROSPECTIVE JUROR MICHALEK: No, he has not.

10 THE COURT: His work as a mechanical engineer
11 has been in what field?

12 PROSPECTIVE JUROR MICHALSKI: He was with the
13 University of Wisconsin with the physical plant.

14 THE COURT: Have you ever been involved in the
15 jury or in trial, whether as a party, as a witness,
16 sitting on a jury or being called for jury selection?

17 PROSPECTIVE JUROR MICHALSKI: I was on one jury
18 trial a couple years ago. It was a drunk boating
19 incident.

20 THE COURT: All right. And did that go to
21 verdict?

22 PROSPECTIVE JUROR MICHALSKI: Yes.

23 THE COURT: Was it a criminal or a civil case?

24 PROSPECTIVE JUROR MICHALSKI: I don't know.

25 THE COURT: All right. Do you remember what

1 the verdict was?

2 PROSPECTIVE JUROR MICHALSKI: He was guilty.

3 THE COURT: All right. Which would have been a
4 criminal trial. Did you serve as the foreperson of the
5 jury?

6 PROSPECTIVE JUROR MICHALSKI: No.

7 THE COURT: Anything about that experience that
8 you view particularly positive or negative?

9 PROSPECTIVE JUROR MICHALSKI: I'm kind of a
10 life-long learner and I really enjoyed learning about
11 the process. I was really impressed with it.

12 THE COURT: Anything about it that you think
13 would impact your ability to be impartial here?

14 PROSPECTIVE JUROR MICHALSKI: No.

15 THE COURT: And I take it from your answer then
16 not a party to a lawsuit or a witness before now.

17 PROSPECTIVE JUROR MICHALSKI: No.

18 THE COURT: And do you regularly use a computer
19 yourself?

20 PROSPECTIVE JUROR MICHALSKI: Yes.

21 THE COURT: I just asked questions about the
22 specific uses that you may have of computers, but do you
23 or someone close to you have specific education,
24 training or work in computer programming or information
25 technology?

1 PROSPECTIVE JUROR MICHALSKI: We're really bad
2 at our house.

3 THE COURT: All right. What about with respect
4 to accounting or law?

5 PROSPECTIVE JUROR MICHALSKI: My brother is a
6 real estate lawyer, as is my daughter.

7 THE COURT: All right. She's a real estate
8 lawyer or a lawyer?

9 PROSPECTIVE JUROR MICHALSKI: She's a lawyer.

10 THE COURT: Okay. Does she work in the
11 intellectual property field?

12 PROSPECTIVE JUROR MICHALSKI: No.

13 THE COURT: Anything about their experiences
14 you think would make it difficult for you to be
15 impartial?

16 PROSPECTIVE JUROR MICHALSKI: No.

17 THE COURT: Have you or someone close to you
18 ever developed a new product or an invention or patent,
19 sought a patent on a product or dealt with the United
20 States Patent and Trademark Office?

21 PROSPECTIVE JUROR MICHALSKI: No.

22 THE COURT: All right. Do you have
23 particularly strongly held opinions, negative or
24 positive, regarding the American patent system?

25 PROSPECTIVE JUROR MICHALSKI: No.

1 THE COURT: What about with respect to large
2 corporations?

3 PROSPECTIVE JUROR MICHALSKI: No.

4 THE COURT: Would you have any difficulty
5 finding a patent valid or awarding substantial damages
6 if the evidence supported it?

7 PROSPECTIVE JUROR MICHALSKI: I would have no
8 problem.

9 THE COURT: Similarly would you have trouble
10 finding a patent invalid or awarding zero damages if the
11 evidence supported it?

12 PROSPECTIVE JUROR MICHALSKI: No problem.

13 THE COURT: At the end of the case, I will give
14 you instructions that will govern your deliberations.
15 Are you comfortable that you will follow those
16 instructions even if you don't agree with them?

17 PROSPECTIVE JUROR MICHALSKI: Yes.

18 THE COURT: I will ask this last question:
19 Aside from the athletic department, have any of you
20 donated money to the University of Wisconsin?

21 All right. Then let me ask the general followup
22 question. Do you know of any reason whatsoever why you
23 could not sit as a trial juror with absolute
24 impartiality to all parties in this case? (No
25 response.)

1 Unless there is need by counsel, we're going to
2 proceed now with the exercise of what we call preemptory
3 challenges. It's just the ability of both sides to
4 whittle down the number of people that actually serve as
5 juror members here.

6 While they're undergoing that process, you're free
7 to stand, to stretch. If you need to, you can follow
8 the court security officer's direction and use the
9 facility. This won't take long, but it will take 10 to
10 15 minutes. When you're all back -- I would ask you to
11 go in two or threes because it's helpful to the parties
12 to actually see a face and identify in making their
13 determinations. But you can stand. You can stretch. I
14 would ask that you generally not talk in the courtroom.
15 And if you are going to leave the courtroom, that you
16 not discuss anything that's happened this morning. You
17 can talk about the courtroom decor, the Packer game.
18 Anything. But nothing that's happened in the courtroom.
19 And when you all get back, I will give you very specific
20 instructions about how to conduct yourselves during
21 breaks.

22 With that then, I'm going to turn and talk to the
23 Members of the Jury who were not part of the final
24 group. But feel free to stand or stretch if you need
25 to.

1 For those of you who were called forward and
2 excused and for those I guess four of you who were not
3 called forward, I want to thank you for your service,
4 particularly those who were not called forward at all.
5 We don't know -- in fact, our court prides itself on
6 only bringing in enough people to assure that we have
7 sufficient numbers to go forward with the trial.
8 Sometimes we're down to one or two. We're down to four
9 here, but believe me that your coming and being
10 available was crucial to assuring that all of the people
11 who worked on this matter and who prepared to go forward
12 to trial were able to do so. So I thank you for your
13 service in doing that.

14 And I also thank those of you who were excused for
15 whatever reason for your candid responses. And all of
16 you are excused, except that you should report to
17 Teresita, our clerk for jury members, just to assure
18 that if you have any further obligations with respect to
19 jury service going forward, you know what those are.
20 But other than that, I thank you again for your service
21 and you're free to leave the courtroom.

22 (Prospective jurors leave at 11:18 a.m.)

23 THE COURT: As I say, as soon as everyone is
24 back in the courtroom, I'll give you instructions.

25 MR. CHU: Your Honor, may we have a very brief

1 sidebar?

2 THE COURT: You may.

3 (Discussion at sidebar at 11:19 a.m.)

4 THE COURT: The time for this would have been
5 before I impaneled this group of 14, but if you want to
6 make a record, go ahead.

7 MR. CHU: No, no, it's not making a record. I
8 realized that perhaps we inartfully drafted a question.
9 We would suggest that the Court would ask for those who
10 raised their hand on an Apple computer --

11 THE COURT: This is not the time for that. I
12 even turned and said unless counsel have a reason for
13 sidebar. We're done. That part of the case is done.

14 MR. CHU: I didn't realize --

15 THE COURT: So step back. Thank you.

16 (End of sidebar discussion at 11:19 a.m.)

17 (Preemptory strikes 11:19-11:24 a.m.)

18 THE COURT: Again, as soon as we have everyone
19 back I'll give you some short instructions.

20 (Pause 11:24-11:25 a.m.)

21 THE COURT: Actually it appears we're fairly
22 close to impaneling a jury, so I'm going to wait and
23 give you all the instructions at the same time. What we
24 will do is as soon as we've impaneled our jury and I've
25 dismissed those of you who are not called forward or

1 dismiss those who are called forward, then we will take
2 a 15-minute break and we will come back and I will give
3 you the full instructions and then we'll probably take
4 our lunch break. So this break will be shorter because
5 we'll go to lunch after the instructions. Those
6 instructions will give you an idea of how to conduct
7 yourselves during the course of the trial.

8 I do want to emphasize though during this 15-minute
9 break that we will be taking shortly, for those of you
10 who are impaneled as part of the jury, don't discuss
11 anything about the case with each other at all. Period.
12 Nothing that's happened in the courtroom. And do not go
13 to your -- the instinct we all have now, which is to
14 suddenly google or search or look anywhere, it's wrong.
15 It's wrong to the parties. It can't happen.

16 So during the short break, because I think you're
17 entitled to one just to take a deep breath, I admonish
18 you strongly not to do that.

19 THE CLERK: The following jurors are excused
20 and may take a seat at the rear of the courtroom. Sue
21 Bettenhausen. Bruce Pickering. Benjamin Van Horn.
22 Lisa Martinson. Jeffrey Pothof. Michael Courtney.

23 The following jurors have been selected and shall
24 take the seats in the jury box.

25 THE COURT: And as your name is called, you'll

1 just be asked to move to your right so we end up filling
2 from the right chair. Michael Benesh, if you would go
3 to the far chair -- others should stay seated until
4 called. Michelle Blang. Bradley West. Angeline Elmer.
5 And then Ms. Michalski, you can stay where you're
6 seated. That's perfect. Sorry. Ms. Burns, if you
7 would take one seat to your right. Ms. Weisert, if you
8 would do the same. And finally, Mr. Egger.

9 And since I have you all safely ensconced there, I
10 said I would give you a break immediately, but since we
11 just stretched, let me give you the instruction on
12 breaks and recesses that I normally would do if the voir
13 dire would take longer. Keep these things in mind for
14 all breaks, including the one you're about to take.

15 During breaks and recesses as well as the end of
16 each day, please keep in mind the following
17 instructions -- and all of the instructions that I'm
18 going to give you during the course of trial you will
19 have with you during your deliberations. But this one
20 you really need to focus on.

21 First, do not discuss the case either among
22 yourselves or with anyone else during the course of this
23 trial. The parties to this lawsuit have a right to
24 expect from you that you will keep an open mind
25 throughout the trial. You should not reach a conclusion

1 until you have heard all of the evidence, have heard the
2 lawyers' closing arguments and my instructions to you on
3 the law, and have retired to deliberate with each other
4 as a juror.

5 Until -- as a jury, excuse me. Until you retire or
6 deliberate, you may not discuss this case with anyone,
7 even your fellow jurors. After you retire to
8 deliberate, you may begin discussing the case with your
9 fellow jurors, but you cannot discuss the case with
10 anyone else until you have returned a verdict and the
11 case is at an end.

12 Think about it this way: You've just pledged to be
13 impartial. By human nature we all start to develop
14 impressions or opinions. You're to try to keep an open
15 mind yourself throughout the trial. In fact, you can't
16 really reach any definitive conclusion until you've
17 heard my instructions on the law and the arguments from
18 counsel about the evidence that you heard. So even if
19 you start to form opinions, realize that they can't be
20 your final judgment. But more importantly, don't share
21 those initial impressions, which are not fully formed or
22 fully informed, with anyone else on the jury because
23 then you're influencing them in a way that shouldn't
24 even be true of you. So that's why you don't discuss
25 the case or anything about what is done in this

1 courtroom until you deliberate. And each of you make a
2 pledge to do that.

3 Second, I know that many of you -- in fact, all of
4 you I guess, use cellphones, BlackBerries, the internet,
5 and other tools of technology. I really -- I can't
6 emphasize enough the importance of your not commenting
7 about this trial, talking to anyone about this case,
8 using these tools to communicate electronically with
9 anyone about this case during the trial. This includes
10 your family and friends. You may not communicate with
11 anyone about the case on your cellphone, through email,
12 Blackberry, iPhone, text messaging, on Twitter, through
13 a blog site, a website, an internet chat room, by way of
14 a social networking website including Facebook, MySpace,
15 LinkedIn, YouTube, and whatever has been invented in the
16 last two weeks. You can't do it. You cannot do it.

17 There have been stories recently in which trials
18 have had to be started from the beginning with a new
19 jury because a member of the jury communicated
20 electronically about the case during the trial. You
21 can't imagine the cost and the inconvenience, and
22 frankly the stress experienced by the parties if you
23 should engage in that activity. You cannot do it.

24 Third, do not permit any person to discuss the case
25 in your presence. If anyone tries to talk to you

1 despite your telling him or her not to, report that fact
2 to the Court as soon as you are able; in this case, to
3 the court security officer, one of whom will always be
4 available to you. Don't discuss the fact that someone
5 has talked to you with anyone, including your fellow
6 jurors. Don't discuss anything about it with anyone
7 else. Just call it to the Court's attention and I will
8 follow up.

9 Fourth. Although it is a normal human tendency to
10 converse with people with whom one is thrown in contact,
11 please do not talk to any of the parties or their
12 attorneys or witnesses. And by this I mean not only do
13 not talk about the case, but do not talk at all, even to
14 pass the time of day. In no other way can all parties
15 be assured of the absolute impartiality that they are
16 entitled to expect from you as jurors. The parties,
17 attorneys, witnesses and members, people in this room
18 are admonished similarly, so don't be offended if they
19 don't say hello to you in the hallway. They're not
20 supposed to. In fact, they would be violating this
21 Court's directive, just as you would be.

22 Fifth. You, as jurors, must decide this case based
23 solely on the evidence presented here within the walls
24 of this courtroom. No matter how interested you may
25 become in the facts of the case, you must not do any

1 independent research. You may not do any investigation
2 or experimentation. This means that during the trial,
3 you must not conduct any efforts to look into anything
4 about this case, the matters in the case, the
5 individuals or the corporations involved in the case.
6 In other words, you should not consult dictionaries,
7 reference materials, read newspapers, listen to the
8 radio or television if anything about this case should
9 be mentioned. And again, I would especially admonish
10 you regarding the use of the internet. Search engines,
11 websites, blogs or electronic tools to obtain
12 information about this case or to help you decide this
13 case would be wholly unfair to the parties in this
14 lawsuit and to the commitment that you're making as
15 jurors. Please do not try to find out information from
16 any source outside the confines of this courtroom.

17 If an internet or newspaper headline catches your
18 eye or a television news lead catches your ear, do not
19 examine the article or listen further. For anyone
20 familiar with the facts of a story, you know that media
21 accounts tend to be incomplete at best and are accurate
22 -- often inaccurate at worst.

23 Internet accounts are even worse. They are much
24 worse. News accounts or internet blogs may also contain
25 matters that are not proper for you to consider as a

1 matter of law. However imperfect they may be, the Rules
2 of Evidence have been developed over hundreds of years
3 for a reason. They are the best method that we've come
4 up with to provide parties with a fair hearing. For
5 this reason, you are required to base your verdict
6 solely on the evidence admitted into this case.

7 That's the end of the instruction with respect to
8 breaks and recesses. I'm confident that you will all
9 adhere to it, beginning with this recess, which will be
10 15 minutes. We will reconvene at 10 to 12 for
11 introduction instructions and a short video. All rise,
12 please.

13 We will wait for you to leave, if you would follow
14 the court security officer.

15 (Jury excused from courtroom at 11:35 a.m.)

16 THE COURT: Given the lateness of the hour, I
17 will give the instruction and play the video, which is
18 part of the introduction instructions, and then we will
19 break for lunch. Because we'll have a little extra
20 time, I probably will bring the jury back at one p.m. so
21 you should expect that we'll spend a little time on the
22 remaining exhibits during that break.

23 We will then reconvene at 1 p.m. for opening
24 statements by each side. Let me just confirm with our
25 IT people that we have the video cued up so that's ready

1 to go at the time I call for it. Thank you.

2 Was there anything more then for WARF at this time?

3 MR. CHU: No, Your Honor.

4 THE COURT: Anything more for Apple?

5 MR. LEE: No, Your Honor.

6 THE COURT: Thank you very much. We are in
7 brief recess. You're free to move about the courtroom.
8 We'll reconvene at 10 to 12.

9 (Recess 11:35-11:53 a.m.)

10 THE COURT: Let's go back on the record again.
11 We'll just go back on the record and we'll bring the
12 jury out in a moment. We're going to have to go until
13 12:30. I didn't factor in the full 20 minutes for the
14 tape, so we'll discuss how we'll proceed. We won't
15 reconvene until at least 1:30.

16 You should bring the jury out, please. All rise,
17 please.

18 (Jury brought in courtroom at 11:54 a.m.)

19 THE COURT: Please be seated. Members of the
20 Jury, before I give you the introductory instructions,
21 I'm going to ask you all to stand, raise your right
22 hand, and be sworn by our clerk.

23 (Jury panel sworn in at 11:55 a.m.)

24 THE COURT: Before you sit down Juror No. 1,
25 are you able to see the screen well?

1 PROSPECTIVE JUROR BENESH: Yeah.

2 THE COURT: Because if you'd prefer, everyone
3 can take a step to the left. That will be your
4 permanent spot. Maybe I'll have at least the back row
5 do that. Why don't you just each go to your left one.
6 We're going -- we're going to make ample use of that
7 screen as well as the screens in front of you. And you
8 may be seated.

9 Members of the Jury, we are about to begin the
10 trial of this case. As I mentioned, the instructions
11 that I'm about to give you will help you understand how
12 the trial will proceed, how you should evaluate the
13 evidence, and how you should conduct yourselves during
14 the course of the trial. I would remind you that you'll
15 have these before you during your deliberations. You'll
16 have written versions of this same set of instructions.

17 The party who began the lawsuit is called the
18 plaintiff. In this case, the plaintiff, as you heard,
19 was the Wisconsin Alumni Research Foundation or WARF.
20 The party against whom the suit is brought is called the
21 defendant. In this case the defendant is Apple, Inc.

22 This case involves U.S. Patent No. 5,781,752, which
23 as I mentioned at the outset may be referred to
24 generally as the '752 patent, the WARF patent, or the
25 patent-in-suit.

1 As you've already heard, this patent is titled
2 *Table Based Data Speculation Circuit for Parallel*
3 *Processing Computer*. WARF claims that the patent
4 intervention improves processing speed and efficiency by
5 scheduling computer instructions based on predictions
6 about how the instructions will behave. The patent was
7 issued to its coinventors: Gurindar Sohi, a professor
8 at the University of Wisconsin, and three of his then
9 graduate students. The rights under this patent were
10 assigned by the inventors to WARF.

11 WARF alleges that Apple is infringing the '752
12 patent by making and selling its A7, A8, and A8X mobile
13 processes or systems-on-chip, SoCs. Apple includes
14 these processors or SoCs in certain iPhone and iPad
15 products, but denies that any of its processes or SoCs
16 infringe the '752 patent.

17 On the claim of infringement, WARF, that is to say
18 the plaintiff, bears the burden of proof. I apologize,
19 somehow I lost page two. This seems to be the case
20 where I lose pages. If either counsel have page two of
21 the instructions. I think what happened is it printed
22 on the front page, but not on the second. You will have
23 the complete set when you get this.

24 The case will proceed as follows: First, WARF's
25 counsel will make an opening statement outlining its

1 case. Immediately after that statement, Apple's counsel
2 will also make an opening statement outlining its case.
3 What is said in opening statements is not evidence, it
4 is simply a guide to help you understand what each party
5 expects the evidence to show.

6 Second, after the opening statements, WARF, as the
7 plaintiff, will introduce evidence in support of its
8 case. At the conclusion of its case, Apple will
9 introduce evidence. Neither party is required to
10 introduce any evidence or to call any witnesses on
11 claims for which the other party bears the burden of
12 proof. If defensive evidence is introduced, the
13 opposing party may introduce rebuttal evidence.

14 Third. After the evidence is presented, I will
15 instruct you on the law that you are to apply in
16 reaching your verdict.

17 Fourth. The parties' counsel will make closing
18 arguments explaining what they believe the evidence has
19 shown, what inferences you should draw from the
20 evidence, and how both comport with the Court's legal
21 instructions. What is said in closing argument is also
22 not evidence. You will ultimately be asked to decide
23 what the evidence proves or does not prove.

24 Fifth. You will retire to the jury room and begin
25 your deliberations. As you heard, it is only at that

1 time that you should start to discuss the case among
2 yourselves.

3 You have already heard and will hear this term,
4 burden of proof, as well as numerous other legal terms
5 used during the trial. In simple terms, the phrase
6 burden of proof means that the party who makes a claim
7 has the obligation of proving that claim. At the end of
8 the trial, I will instruct you on the proper burden of
9 proof to be applied in this case as well as provide
10 other instructions guiding you on important terms, the
11 law generally, and your duties during deliberations.

12 I've already instructed you on your conduct during
13 breaks and recesses and I will try to remind you of that
14 obligation before breaks. In deciding the facts, you
15 have to decide which testimony to believe and which
16 testimony not to believe. You may believe everything a
17 witness says, part of it, or none of it.

18 In considering the testimony of any witness, you
19 may take into account many factors, including the
20 witness's opportunity and ability to see and hear and
21 know the things the witness testified about; the quality
22 of the witness's memory; the witness's appearance and
23 manner while testifying; the witness's interest in the
24 outcome of the case; any bias or prejudice the witness
25 may have; other evidence that may have contradicted the

1 witness's testimony, and the reasonableness of the
2 witness's testimony in light of all the evidence. The
3 weight of the evidence does not necessarily depend upon
4 the number of witnesses who testify.

5 During the trial, you will hear the lawyers make
6 objections to certain questions or to certain answers of
7 the witnesses. When they do so, it is because they
8 believe the question or answer is legally improper and
9 they want me to rule on it. Please do not try to guess
10 why the objection is being made or what the answer would
11 have been if the witness had been allowed to answer it.
12 If I tell you not to consider a particular statement
13 that has already been made, put that statement out of
14 your mind and remember that you may not refer to it
15 during your deliberations. Again, there are good
16 reasons that certain evidence is excluded and it is
17 important that you respect these rulings and directions.

18 During the trial, I may sometimes ask a witness
19 questions. Please do not assume that I have any opinion
20 about the subject matter of my questions. Generally I
21 am just trying to clarify something that I think may be
22 not as clear as it could be for you, as the jury,
23 deciding the facts. If you wish to ask a question about
24 something you do not understand, write it down on a
25 separate slip of paper. And when we come back for

1 opening statements, we will pass out pads and they will
2 be seated at each of your seats. If when the lawyers
3 have finished all of their questioning of the witness
4 the question is still unanswered, your question is still
5 unanswered to your satisfaction, raise your hand and the
6 bailiff, in this case the court security officer, will
7 take written questions from you. I will then review it,
8 I will show it to counsel and decide whether it is a
9 question that can be asked. If it cannot, I will tell
10 you that. I will try to remember to ask about questions
11 after each witness has testified, but this is a weakness
12 of mine because I'm interested in moving the trial
13 along.

14 Please, if you have a question that you think has
15 not been adequately answered, feel free to raise your
16 hand. The court security officer will do a better job
17 than I. But I will try to look and see if there are any
18 followup questions. We will consider it.

19 If you want to take notes, those same notepads and
20 pencils will be available to you during the course of
21 the trial. This does not mean that you have to take
22 notes. Take them only if you want to or if you think it
23 will help you recall the evidence during your
24 deliberations. Do not let notetaking interfere with
25 your important duties of listening carefully to all of

1 the evidence and of evaluating the credibility of the
2 witnesses.

3 Keep in mind that just because you have written
4 something down, it does not mean that the written note
5 is more accurate than another juror's mental
6 recollection of the same thing. No one of you is the
7 secretary for this jury. No one of you is charged with
8 the responsibility of recording evidence. Each of you
9 is responsible for recalling the testimony and other
10 evidence.

11 And although you can see that the trial is being
12 recorded, that is, is being taken down by a court
13 reporter, you should not expect to be able to use trial
14 transcripts during your deliberations. You will have to
15 rely on your own collective memories.

16 Evidence at trial includes the sworn testimony of
17 witnesses, exhibits admitted into evidence, facts
18 judicially noticed, and facts stipulated by counsel.
19 You may consider only evidence that is admitted into the
20 record.

21 In deciding the facts of this case, you are not to
22 consider the following as evidence: Statements and
23 arguments of the lawyers; questions and objections of
24 the lawyers; testimony that I instruct you to disregard
25 or to consider for a limited purpose, and anything you

1 may see or hear when the court is not in session, even
2 if what you see or hear is done or said by one of the
3 parties or by one of the witnesses.

4 Evidence may be either direct or circumstantial.
5 Direct evidence is direct proof of a fact such as
6 testimony by a witness about what the witness said or
7 heard or did. Circumstantial evidence is proof of one
8 or more facts from which you could find another fact.
9 For example, if the issue were whether it were raining
10 yesterday, you might have a witness come in and say they
11 were out in the rain. That would be considered direct
12 evidence. A witness might come in and say that they
13 noticed umbrellas in the entryway of a building that
14 were wet. That would be considered circumstantial
15 evidence. You are -- you should consider both kinds of
16 evidence. The law makes no distinction between the
17 weight to be given to either direct or circumstantial
18 evidence. You are to decide how much weight to give
19 that evidence.

20 A witness may be discredited by contradictory
21 evidence or by evidence that at some other time the
22 witness has said or done something or has failed to say
23 or do something that is inconsistent with the witness's
24 present testimony. If you believe any witness has been
25 discredited, it is up to you to decide how much of the

1 testimony of that witness you believe.

2 If a witness is shown to have given false testimony
3 knowingly, that is voluntarily and intentionally about
4 any important matter, you have the right to distrust the
5 witness's testimony about other matters. You may reject
6 all of the testimony of that witness or you may choose
7 to believe some or all of it.

8 The general rule is that if you find that a witness
9 said something before the trial that is different from
10 what the witness said at trial, you are to consider the
11 earlier statements only as an aid in evaluating the
12 truthfulness of the witness's testimony at trial. You
13 cannot consider as evidence in this trial what was said
14 earlier before the trial began with two exceptions to
15 this general rule.

16 The first is for witnesses who are actual parties
17 in the case. If you find that any of the parties made
18 statements before the trial began that are different
19 from the statements they made at trial, you may consider
20 as evidence in the case whichever statement you find
21 more believable.

22 The second is for statements made in earlier
23 depositions by witnesses who are now unavailable.

24 During the course of a trial the lawyers will refer
25 and read from depositions. The parties may also play

1 portions of videotaped depositions. Depositions are
2 transcripts of testimony or video of testimony taken
3 from witnesses while the parties are preparing for
4 trial. Deposition testimony is given under oath just
5 like the testimony at this trial. You should give it
6 the same consideration you would have had those
7 witnesses testified here in the courtroom.

8 You are to consider -- as I probably said already
9 too much, but it can't be really emphasized enough. You
10 are to consider only the evidence in the case. But in
11 your consideration of the evidence you are not limited
12 solely to what you see and hear as a witness is
13 testifying. You are permitted to draw from facts you
14 find that have been proved such reasonable conclusions
15 or inferences as seem justified in light of your
16 experience and common sense.

17 I've mentioned that experts will testify in this
18 case. A person's training and experience may have him
19 or her -- make him or her a true expert in a technical
20 field. The law allows that person to state an opinion
21 here about matters in that field. It is up to you to
22 decide whether you believe the expert's testimony and
23 choose to rely upon it.

24 Part of that decision will depend on your judgment
25 about whether the expert's background, training, and

1 experience is sufficient for him or her to give the
2 expert opinion that you heard and whether the expert's
3 opinions are based on sound reason, judgment, and
4 information.

5 During the trial, an expert may be asked a question
6 based on assumptions that certain facts are true and
7 then asked for his or her opinion based on that
8 assumption. Such an opinion is of use to you only if
9 the opinion is based on assumed facts that are proven
10 later. If you find that the assumption stated in the
11 question have not been proven, then you should not give
12 any weight to the answer the expert gave to that
13 question.

14 At this juncture, I will ask that you turn your
15 attention to the monitors in the jury box or I believe
16 this larger monitor, which may be easier for some of you
17 to view, so that you can watch a video that explains the
18 basics of the U.S. patent system, the parts of the
19 patent, and how a person obtains a patent.

20 (Video played 12:12-12:27 p.m.)

21 THE COURT: At the close of the trial, as I've
22 already indicated, you will receive specific
23 instructions about the law that you are to follow when
24 you deliberate over the evidence that will be presented
25 to you shortly. In fact, after lunch you'll finally

1 hear from the parties in their opening statements as to
2 what they believe the evidence is going to show in this
3 case. I hope, as was said on the video, that you find
4 this to be a interesting and ultimately gratifying
5 experience.

6 I would remind you at this lunch break we're going
7 to take that you not discuss what's been said. I can't
8 emphasize its importance. The only thing more important
9 is that you not write about it or do any independent
10 research about it. You each are keeping your own
11 counsel and making your own decisions and you're really
12 not prepared to do that until you've heard all of the
13 evidence as well as my instructions and the closing
14 arguments of the parties.

15 In any event, at 1:30 we will reconvene and hear
16 opening statements from the parties. Until that time,
17 you are free to go about your lunch.

18 (Jury excused from courtroom at 12:29 p.m.)

19 THE COURT: The parties can be seated. It
20 seems to me the most productive use of our time to
21 ensure that you have time for your lunch is to address
22 the trial demonstratives from Dr. Conte and then the
23 objections to Apple's exhibits.

24 I'm going to start with the trial demonstratives,
25 and I'll hear from WARF -- actually really from Apple as

1 to the nature of the specific objections. If we could
2 call up Slide, I guess it's 34, is that the first of
3 them?

4 MR. DOWD: Thank you, Your Honor. Jim Dowd on
5 behalf of Apple. What I've tried to do this morning is
6 WARF got to us a new set around five o'clock this
7 morning, which is par for the course, and I've tried to
8 break them into buckets to just streamline the
9 presentation.

10 THE COURT: That's fine.

11 MR. DOWD: If we could actually start with what
12 should be Slide 158.

13 THE COURT: All right. If someone has a hard
14 copy, I'm happy to look at that as well.

15 MR. DOWD: Actually, Your Honor, I do. May I
16 approach, Your Honor?

17 THE COURT: Yes. That's fine. Please do. And
18 maybe while you're doing that, if the IT can figure out
19 how to call it up, that would be great. Thank you.

20 MR. SHEASBY: Your Honor, that slide is -- I
21 think you may have a wrong set. Why don't I do the
22 following: Let me pass up to everyone the set we
23 served, and to be clear, we served it at 2:45 in the
24 morning.

25 THE COURT: It almost goes without saying that

1 everyone is working too hard and too long on this
2 matter.

3 MR. SHEASBY: May I approach?

4 THE COURT: You may approach, certainly. So is
5 there a way to translate the number so I know I'm
6 looking at it correctly?

7 MR. DOWD: I'm just doing that now.

8 MR. SHEASBY: I have a translation actually, so
9 if counsel would tell me the slide, I actually can
10 translate it.

11 MR. DOWD: Your Honor, I have the slide.

12 THE COURT: Call it up or tell me what I'm
13 looking at.

14 MR. DOWD: I believe it's 165.

15 THE COURT: All right. I have it in front of
16 me.

17 MR. DOWD: As an example. But it's really --

18 THE COURT: If Rule 1 applied, Apple is liable
19 for subcontracting manufacturing. Is that the one on
20 the screen now?

21 MR. DOWD: That's correct. And this is part of
22 a sequence that I believe should now be out, based on
23 Your Honor's ruling this morning, that the Samsung
24 issues are for the damages phase. The complete set in
25 this would go from -- I believe it's 162 through -- to

1 the end of the presentation.

2 THE COURT: And to get to the heart of it, your
3 objection is that it's not relevant?

4 MR. DOWD: This is material that is going at
5 the issue of vicarious liability. So there's -- there
6 are really two objections. The first would be, as I
7 understood Your Honor this morning, that is an issue for
8 the second phase, not an issue for liability. The
9 second thing is that this is --

10 THE COURT: Let's just say not an issue for the
11 liability phase and we'll be on the same page. In any
12 event, you had a second objection.

13 MR. DOWD: The second objection is that when we
14 get to the liability phase, if these are offered, we
15 would have an objection to Dr. Conte offering this
16 because this isn't the subject area of his expertise.
17 It's not his expertise to do things like interpret
18 contract language or decide if someone is an agent of
19 somebody else. He's a technical expert who's here to
20 talk about processors.

21 THE COURT: All right. I'll hear briefly.

22 MR. SHEASBY: Yes, Your Honor. Two important
23 distinctions. First, what Dr. Conte is doing in this
24 slide is describing the Rule --

25 THE COURT: When you say *this slide*, you're

1 talking now about the 165 slide?

2 MR. SHEASBY: 165. Obviously these were
3 exchanged before Your Honor's ruling this morning. None
4 of this is coming into the liability phase.

5 THE COURT: So there's nothing to talk about
6 for purpose of the current phase of trial.

7 MR. SHEASBY: Unless you want to hear about --

8 THE COURT: Not particularly at this stage. If
9 there's some objection in the damage phase, I'll hear
10 it. So that addresses this group, I believe.

11 MR. DOWD: I believe that's correct. The next
12 group, let me see if I can correlate it. It was the old
13 Slide 121, and if Mr. Sheasby has the correlation to
14 where that is now, I'd take his guidance.

15 MR. SHEASBY: I think I can find it.

16 THE COURT: Looks like an infringement claim
17 chart with checks.

18 MR. DOWD: Actually it's the doctrine of
19 equivalents slides.

20 MR. SHEASBY: Those are out. We agreed with
21 them last night.

22 THE COURT: Very good. This is getting easier
23 and easier.

24 MR. DOWD: Hopefully it will stay easier. That
25 is out because its doctrine of equivalents. If we go to

1 -- in this group, the objection is really that what the
2 slides are are essentially jury instructions. They're
3 instructions on what the law is.

4 THE COURT: Couple of those I've seen so far
5 strike me that way, but I'm going to have to have the
6 specific example called up or the right number given to
7 me before I can --

8 MR. SHEASBY: 61 is an example, Jim.

9 MR. DOWD: I think -- old 61 or current 61?

10 MR. SHEASBY: Current 61, I think.

11 THE COURT: It's on your screen now.

12 MR. DOWD: That -- yes, thank you. That's a
13 serviceable example. This is in the nature of a jury
14 instruction. This is along the lines of the
15 instructions the Court has given preliminarily.

16 THE COURT: That's out. An expert is not going
17 to testify as to what the standard of proof is.

18 MR. SHEASBY: Your Honor, to be clear, and just
19 for clarification --

20 THE COURT: You can clarify, but it's out.

21 MR. SHEASBY: Yes. Is Professor Conte allowed
22 to describe the rules that he followed in preparing his
23 analysis?

24 THE COURT: He can say this is the rule I
25 followed, but you're not putting a screen up with an

1 expert explaining this standard of proof. I understand
2 -- he can testify that this was the standard I applied,
3 but we're not going to emphasize that he somehow has
4 adopted the correct standard.

5 MR. SHEASBY: So I understand, the slide will
6 not go up.

7 THE COURT: Very good. Next.

8 MR. DOWD: Just so we get it on the record, at
9 least under the old numbers it was 61, 62, 63, 67, and
10 121. I think with the Court's guidance, we can agree on
11 that.

12 MR. SHEASBY: We'll --

13 THE COURT: I'm looking at 61. Which I said is
14 out. 62 is out as well. Again, I won't prevent the
15 witness from describing his understanding, but we're not
16 going to overemphasize it, and frankly, I'm not sure a
17 witness should be describing what is relevant and what
18 is not relevant. He's not testifying as to the law. I
19 understand he has described his standard generally, but
20 to say intent or knowledge is not required, I'm not even
21 sure he should testify to that. He should simply
22 testify this is what I did and you can explain why he
23 didn't spent any time on intent or knowledge. He looked
24 at the accused product, looked at the claims, and he
25 made his determination as to infringement. So I would

1 say 62 is out completely.

2 63, I don't know that there's -- or 64, I guess, on
3 my numbers. Is there an objection to that?

4 MR. DOWD: It looks as though 63 --

5 THE COURT: Has been eliminated.

6 MR. DOWD: -- has been eliminated. And then
7 the next one I have is 121, which was the DOE, and that
8 has been addressed.

9 THE COURT: All right. Anything else?

10 MR. DOWD: That's all in my bucket.

11 THE COURT: Very good. Then let me take up the
12 exhibits.

13 MR. DOWD: I'm sorry, Your Honor.

14 THE COURT: I'm sorry, there's something more
15 for Conte?

16 MR. DOWD: I'm sorry.

17 THE COURT: That's fine. Go ahead.

18 MR. DOWD: So what I've tried to do is put them
19 in buckets by issue.

20 THE COURT: Yes, you did. The next bucket. I
21 was being overly optimistic.

22 MR. DOWD: Sorry, Your Honor.

23 THE COURT: What number are we talking about?

24 MR. DOWD: The next one should be -- it used to
25 be 47. Let's see.

1 MR. SHEASBY: It's still 47.

2 THE COURT: All right.

3 MR. DOWD: So...

4 THE COURT: The nature of the objection?

5 MR. DOWD: So the slide has changed slightly
6 from the one that I had. The concern in this bucket is
7 slides that use claim terms in a manner that is not
8 consistent with the Court's claim construction.

9 THE COURT: And here it is not because?

10 MR. DOWD: Here the Court has given a
11 construction of what the term predict means, prediction
12 means, and it's not danger of ongoing collection of
13 information. A prediction requires, under the Court's
14 construction, in fact executing which requires that --

15 THE COURT: On 48; right?

16 MR. DOWD: In 48 is the definition of
17 prediction. I'm not objecting to 48. But 47, which
18 suggests that predictions are just ongoing -- danger of
19 ongoing --

20 THE COURT: I will -- well, I'll hear you very
21 briefly, but I'm inclined to exclude 47 because it just
22 complicates what the expert really should be opining.

23 MR. SHEASBY: So Your Honor, one of the things
24 that we can't every time we say the word prediction
25 repeat the whole construction.

1 THE COURT: No, but you can repeat it once at
2 the beginning, and that should be what's stated, not his
3 encapsulation of the concept before he then lives with
4 the construction given by the Court. So 47 is out.

5 Next slide.

6 MR. DOWD: So the next one, let's see --

7 THE COURT: And again, these are all
8 demonstratives anyway. It's not as though they're
9 coming into evidence. They're supposed to be
10 encapsulating testimony or give ease to an expert to
11 describe what they did. And I agree we shouldn't be
12 overemphasizing things that the expert shouldn't be
13 opining on to begin with.

14 MR. DOWD: Sorry. I'm just trying to
15 correlate. As I'm correlating, I'm trying to see what's
16 applying.

17 THE COURT: Both counsel have done pretty well.
18 Why don't you give us the number that you believe it is
19 and we'll see if we can get to it that way. Are we
20 still on the bucket of improper validity opinions?

21 MR. DOWD: I was, Your Honor. I'm just trying
22 to see how to correlate. I'm sorry, Your Honor, what
23 I'm trying to do is correlate both the numbers and then
24 identify what has changed on the slide on the fly to see
25 if there's still an objection.

1 THE COURT: Let's do this: We're going to be
2 breaking for lunch shortly. Would the two of you sit
3 down and see if you can reach agreement if there are
4 specifics? When will Dr. Conte -- we'll have a break
5 before he is called because we'll do openings which are
6 roughly -- are you still thinking 45 minutes to an hour?

7 MR. CHU: Yes.

8 THE COURT: Same?

9 MR. LEE: Same, Your Honor.

10 THE COURT: So we'll probably be able to take a
11 break. Is Dr. Conte going to be your first witness?

12 MR. CHU: No. Dr. Gulbrandsen is.

13 THE COURT: All right. We should be in pretty
14 good shape. If you could be back at 1:25 and if there
15 are still issues, we'll take them up then. Otherwise
16 we'll take them up at the next break.

17 MR. DOWD: Thank you, Your Honor.

18 THE COURT: I was hoping to get to the
19 exhibits. How soon will Apple be expecting to introduce
20 the several exhibits that are going to be objected to?

21 MR. MARCUS: Your Honor, David Marcus for
22 Apple. It's not something we need to take up right now.
23 And with respect to the contested liability exhibits,
24 many of them or all of them turn on the Court's rulings
25 on the deposition designations relating to David Webb.

1 THE COURT: Mr. Weber or Webb.

2 MR. MARCUS: So I think for right now, Your
3 Honor, we're fine.

4 THE COURT: All right. Actually why don't I --
5 I'll review that over the lunch hour as well and see if
6 I can narrow at least the nature of the parties'
7 disagreement on that score.

8 So anything more for WARF before we break?

9 MR. CHU: There's one opening slide the Court
10 asked me about amazing inventions and other things, so
11 we took out that language.

12 THE COURT: I saw that. It was up on the
13 screen for a moment.

14 MR. CHU: Yes. And --

15 THE COURT: That looks appropriate to me. I'll
16 ask if -- have you shown this --

17 MR. CHU: Yes.

18 MR. LEE: Your Honor, I still think this is
19 Your Honor's province, but if Your Honor thinks it's
20 acceptable, we're not going to agonize about it. But,
21 you know, the question whether U.S. government wants
22 disclosure, whether the rules apply to everyone in
23 exchange, this is what you're supposed to --

24 THE COURT: I'm going to allow it. It borders
25 on argument and I certainly hope it is not -- there's

1 not argument made when it's presented. But in terms of
2 stating what the general purpose of the patent laws are
3 in our country, I'm going to allow you to make that
4 general representation.

5 Anything more for Apple?

6 MR. LEE: No, Your Honor.

7 THE COURT: Very good. Then we will reconvene
8 at 1:25 and start opening statements at 1:30 and you're
9 free to move about the courtroom. We're in recess.
10 Thank you.

11 (Noon recess 12:43-1:27 p.m.)

12 THE COURT: Please remain seated while we take
13 up a couple matters before we bring out the jury. I did
14 provide you with the court's ruling on the Webb
15 transcript. That still leaves the Court with a few
16 questions on the exhibits that are supported by the
17 testimony, particularly as to their admissibility. But
18 we can take that up at the break. And I anticipate
19 taking up -- well, I'll take up something with regard to
20 Conte if that would be productive if it's substantially
21 meaningful to do it at the break as well.

22 MR. SHEASBY: Your Honor, I think that we've
23 made pretty substantial progress. There are two areas
24 where we need Court guidance.

25 THE COURT: Sure. Maybe you could call it up.

1 I'd have to look at it.

2 MR. SHEASBY: Sure. The first one relates to
3 Slide 69.

4 THE COURT: All right. I have it in front of
5 me.

6 MR. SHEASBY: So one of the items we need to do
7 is we need to read into the record the admissions from
8 Apple, and these are unobjected to admissions. They're
9 going to be in the record. They're going to be read.
10 And to speed up Professor Conte's presentation as
11 opposed to him presenting all the evidence that he used
12 to establish that A7 chip is representative of all
13 infringing chips, he just cites to Apple's admission
14 that that's the case.

15 THE COURT: I understand. I'll hear from Apple
16 as to its objection.

17 MR. DOWD: Yep. Thank you, Your Honor. Jim
18 Dowd on behalf of Apple. I think probably a better
19 place to go is Slide 89, if we could go there. And
20 while that's coming up, there are really two objections,
21 Your Honor. The first is that the use of RFAs was not
22 in the expert's reports, so this is material that is
23 beyond the scope of the experts's report.

24 THE COURT: Well, that's not true. He was
25 opining on those elements. So to the extent that he's

1 now relying on the admission, that's perfectly
2 acceptable. He can rely on other evidence. It's been
3 made part of the record.

4 But what's your other concern?

5 MR. DOWD: My other concern is probably
6 highlighted best on Slide 89, which we now have up.
7 What he's done is he's taken something that is a Request
8 for Admission --

9 THE COURT: And really made something out of
10 it. I agree. I think this has gone too far. It's not
11 a demonstrative.

12 MR. SHEASBY: No problem, Your Honor.

13 THE COURT: If you want to just have the
14 request to admit and he can explain why he's relying on
15 it correctly and not correctly, that's fine. But he's
16 not going to be able to amplify testimony by additional
17 highlighting.

18 MR. DOWD: And Your Honor --

19 MR. SHEASBY: Understood.

20 MR. DOWD: -- while we're on this slide,
21 there's a second issue which is throughout the slides,
22 there's this kind of pejorative term *Apple jargon*. I
23 think it's fine if they say Apple terminology, but to
24 call what we say somehow like hiding what we do is
25 incorrect.

1 THE COURT: You want to propose an alternative
2 to jargon?

3 MR. SHEASBY: I -- I was thinking about using
4 Apple's words or Apple's terminology. Whatever they
5 would prefer.

6 MR. DOWD: Terminology would be fine.

7 THE COURT: Terminology -- well, there could be
8 something that's fine, too. But since everyone is in
9 agreement, let's go with terminology.

10 Was there something else more then for me to rule
11 on?

12 MR. SHEASBY: So there was one other issue
13 which I think is worth getting the Court's guidance on,
14 which is in Conte's report, he talks about the steps
15 that led to the invention, the history.

16 THE COURT: Understood.

17 MR. SHEASBY: This is directly in his report.
18 I can cite you the paragraphs. And they're objecting to
19 that as somehow being validity testimony. I think that,
20 to be clear, whatever is in his first report is in his
21 first report. They're on notice of what he's going to
22 say. He's certainly not going to say this was valid
23 over Hesson or valid over Steely, but he is going to say
24 this was important work because that supports the
25 objective indicia and he has fully disclosed his

1 opinions that this relates to important work.

2 Let's go to Slide 45, for example. So what we've
3 agreed to them is to remove the word key discovery
4 because they didn't like that. So it's just going to
5 say discovery. And what Professor Conte says is his
6 report is that the '752 patent inventors established
7 that a relatively small population of load-store pairs
8 responsible for recurring dependencies over short
9 periods of time, but these -- but there would be a
10 change in the subset as time progressed.

11 THE COURT: All right. Let me hear from Apple.
12 What's the objection to the slide?

13 MR. DOWD: So I think in part the objection is
14 resolved by the removal of key discovery. That was one
15 issue. I'm glad to hear that that's now resolved.
16 There were a couple of these, Your Honor, that aren't
17 actually ripe and I think this is one of them wherein
18 the lightning round meet-and-confer we just had, I'd
19 asked Mr. Sheasby if he could get me the citations to
20 the report. He hasn't followed up with me yet.

21 THE COURT: All right. We're going to withhold
22 on that. Is there some other category I can refer to?

23 MR. SHEASBY: Yes, Your Honor. There is one
24 other category. By the way, for the record that's Conte
25 report 179. I did give that citation.

1 THE COURT: If you did -- just so we're clear,
2 we're not having this discussion. You're either ready
3 to address it, having fully discussed it, or not. It's
4 represented to me you're not. In any event, Conte is
5 not coming on until after the break. If we need to,
6 we'll do it by sidebar. But you should see how far you
7 can get before you bring a matter to me.

8 Now, you said there was another category.

9 MR. SHEASBY: There is one slide I think we're
10 working on. Mr. Dowd, you had the slide about the nine
11 pipelines. Do you want to pull that up? Because I
12 think that is fully resolved.

13 MR. DOWD: That should be 70.

14 MR. SHEASBY: Okay. 70. So this is a slide of
15 Apple's pipeline and it says nine pipelines. And in
16 Dr. Conte's report he actually does identify nine
17 parallel execution pipelines. That's paragraph 120.
18 This is another category they are objecting to. And I
19 don't understand --

20 THE COURT: All right. Let me hear from Apple.
21 What's the objection?

22 MR. DOWD: So this was another one where --
23 this is another one where I asked for citation; I hadn't
24 gotten it until just now. So if I could --

25 THE COURT: Let's just bring the jury out. All

1 rise, please. While we're waiting for the jury, just a
2 reminder the middle of the court is a
3 computer/iPhone/laptop-free area. WARF has its area
4 that it's allowed to by its people on the left and Apple
5 on the right of the courtroom. But the center of the
6 courtroom, there should be no use of any electronic
7 devices, and the court security officer will remind you
8 if you forget.

9 (Jury brought from courtroom at 1:34 p.m.)

10 THE COURT: Please be seated. Welcome back
11 from lunch. As I indicated, we will begin now with
12 opening statement for the plaintiff WARF. Mr. Chu.

13 MR. CHU: Thank you very much, Your Honor. May
14 it please, Your Honor.

15 MR. LEE: Your Honor, we ask that be moved from
16 the present location so it's not blocking our view.

17 THE COURT: This is the kind of thing I really
18 wish had been handled ahead of time, but why don't we
19 put it off to the left. If you can set it down for now.
20 And then going forward, if either side has a problem
21 with how things are arranged, they need to raise it
22 before we get the jury back in the room. Why don't you
23 proceed.

24 MR. CHU: Thank you, Your Honor. Ladies and
25 Gentleman of the Jury. Good afternoon. My name is

1 Morgan Chu and I represent the people at the Wisconsin
2 Alumni Research Foundation.

3 As you know, this is a patent case and we're going
4 to be talking about a particular patent quite a bit over
5 the next couple weeks. And I'd first like to introduce
6 to you Professor Guri Sohi from the University of
7 Wisconsin-Madison. I'd also like to introduce to you
8 one of his graduate students from a good number of years
9 ago, Dr. Scott Breach. Thank you very much.

10 And as you will hear, going back for Professor Guri
11 starting in the 1980's and then later with Dr. Breach
12 and two other graduate students, they started working on
13 a very tough problem that people around the world at
14 some of the largest corporations and the best academic
15 institutions around the world were looking at.

16 But first let me explain what is WARF or the
17 Wisconsin Alumni Research Foundation. You were very
18 briefly introduced to Dr. Carl Gulbrandsen this morning
19 and he is the managing director. Dr. Gulbrandsen will
20 be our very first witness. So he will describe in a
21 little bit more detail what they do and, excuse me,
22 basically they serve as a supporting organization for
23 the University of Wisconsin. They help manage
24 disclosures of inventions, applying for patents, and
25 managing patents.

1 Now, I want you to take a trip back in time with me
2 for just a little bit. It's the later 1980's.
3 Computers were much more primitive than they are today.
4 But Dr. Sohi had been thinking about a problem that was
5 deviling people quite a bit, and it involved something
6 that's called out-of-order processing. I'm going to
7 show you very briefly, if we could just set this up and
8 I think we can set it up right here, right here, so --

9 THE COURT: The problem is that you don't have
10 a mic right there, so you're not going -- you're miked.
11 Very good. Thank you. As long as you stay by the
12 podium or come back or go to that spot.

13 MR. CHU: Can everyone hear me fine?

14 MR. LEE: If I may come around to see.

15 THE COURT: Sure.

16 MR. CHU: And this is going to be --

17 THE COURT: Wherever you want to stand.

18 MR. CHU: This is going to be a relatively
19 simple explanation. I've written up load 3, and
20 computer scientists and programmers think about loading
21 as loading some information from memory, which acts like
22 a filing cabinet for information, and loading it into a
23 processor, which is the brains of the computer. So if
24 the computer, the processor is going to do some work, it
25 needs to get information from memory, that information

1 is loaded into the processor, and then it may do some
2 work.

3 So let's assume the first instruction is load the
4 number 3 into the processor. And let's assume that the
5 second instruction is load the number 4. And the third
6 instruction is add 3 plus 4 equals 7.

7 Now, long ago, computers in a sense were very
8 similar to a narrow country road. The processors were
9 not as good and they would receive instructions and do
10 them just one by one by one. And then people said well,
11 sometimes the load 4, the second instruction, might be
12 ready earlier than load 3. But if everything was done
13 in order, then the computer would have to wait. It
14 would waste the resources. So long before Professor
15 Guri started thinking about some problems related to
16 this, other people said we can find ways to execute
17 computer instructions out of order. If load 3 is ready,
18 we'll execute that. But if it's not ready and load 4 is
19 ready, we'll execute that.

20 In this example you can see that it's okay to
21 execute the instructions out of order. Doesn't matter
22 whether you load the load 4 first or the load 3 first.
23 And just to stay with this example, if there was another
24 instruction like add 3 plus 4, you can see that it
25 wouldn't work to do the addition before the load 4.

1 This, the addition, has to come after these load
2 instructions. We're okay with that?

3 Okay. Now, I'm going to take this down just to
4 make it easier for others. So in a real computer system
5 in the late 1980's, in the 1990's, people were thinking
6 about how do we get to do this better? Because they had
7 become sufficiently complicated, people saw some
8 problems. And there was always the possibility that if
9 you did two instructions out of order, it might cause a
10 mistake to be made. And then if a mistake is made,
11 instead of speeding up the computer, the computer would
12 have to go backwards, throw away all of the work that
13 had been done, begin again to get it right, and to make
14 sure that the two particular instructions were executed
15 in the correct order.

16 But Professor Sohi is thinking about something
17 that's even more complex than that. He's thinking not
18 about the computers of that time, he's thinking about
19 computers that he thinks will come into existence years
20 into the future, computers that didn't exist in the late
21 1980's or early 1990's. But he and others could foresee
22 how computers were getting faster and faster. And he
23 started to look to the horizon and indeed was looking
24 over the horizon. And just as we, as human beings, no
25 matter how good our eyesight is, we cannot see over the

1 horizon. He was thinking about computers and what they
2 might be able to achieve 10, 15, 20 years in the future
3 and how the problems of doing out-of-order execution of
4 computer instructions would be so much more complex, and
5 thinking about that vision, how he might be able to
6 solve it.

7 So at first he's thinking about it. But by 1992
8 and '93, there are three very lucky graduate students
9 and one very lucky Professor Sohi, and Professor Sohi
10 would probably say he's the luckiest of all. There were
11 three graduate students who come to U.W. Madison and
12 they want to work, each of them individually, with
13 Professor Sohi. And he talks to them about the problems
14 that he's been thinking about. And they embark on
15 trying to make computers faster for this out-of-order
16 execution to minimize those collisions that would cause
17 the computer to have to redo the work and to maximize
18 the number of times the prediction of allowing
19 instructions to be executed out of order would work.
20 And they were working on it all the time. You probably
21 know some people who in their lives they get very
22 excited about something, and it might have to do with
23 the arts or reading or something else. Well, graduate
24 students, particularly those in many fields at U.W.,
25 work incredibly hard. And over the next several years

1 this group of four put in the equivalent of more than 11
2 person years to try and solve this problem. They came
3 up with a lot of good ideas they thought; lots of them
4 didn't work. There were failures along the way. There
5 was a lot of times they had to go back to the drawing
6 board.

7 But finally toward the tail end of 1995, they think
8 they've got it. They've been testing it and testing it
9 and testing it. And what they have is a way to have a
10 better prediction of what will happen when the
11 instructions are executed as fast as they can possibly
12 be, including out of order, minimizing the times when
13 the instructions should have been in a different order.

14 And by 1996, they applied to the United States
15 Patent Office for a patent. And at that point, there's
16 a rigorous examination. The Patent Office has people
17 who are trained in a particular area of technology, so
18 it's not a biologist or it's not a structural engineer
19 or general electrical engineer, it's someone who knows
20 this technology and they have technical degrees. And
21 they're also trained in the law. And they carefully
22 examining -- examine the application and say well,
23 explain this better to me or I'm not going to accept
24 this. And then from the application in 1996 after this
25 very careful examination by the United States Patent

1 Office, they decided to grant Professor Sohi and his
2 three graduate students a United States patent. That is
3 the patent involved in this very case.

4 Now, I'm going to look more closely at some of the
5 background to this and the evidence that you will hear
6 during the course of this trial. This is just some
7 basics about why we have patent laws. U.S. government
8 wants disclosure of inventions. And in exchange, if
9 someone wants to use one's invention, that person needs
10 permission for a limited period. And as you heard this
11 morning, after the patent expires, everyone gets the
12 benefit of the technology and can use it for free. And
13 the same rules apply to everyone, whether you're a
14 university, whether you're the world's largest
15 corporations or just a group of three graduate students
16 and one professor.

17 And the way to think about a patent is this: Some
18 of you may own your own home or you rent an apartment
19 and you have control over your home or your apartment.
20 No one can come in and squat on your land or in your
21 apartment without your permission. A patent license, by
22 the way, is just a fancy legal phrase of granting
23 permission to use someone's patent rights.

24 THE COURT: Mr. Chu, I just want to make sure
25 you're on pace for your original estimate for opening.

1 MR. CHU: Yes.

2 THE COURT: Because we're not going to start at
3 a basic level that's already part of -- that was done in
4 the video.

5 MR. CHU: Yes.

6 THE COURT: If you would move that part.

7 MR. CHU: Yes, I will. Thank you very much,
8 Your Honor. So this depicts what it is for real estate.
9 And you'll hear about claims for a patent and it must be
10 within this real estate area. This is the face of the
11 patent, and as you can see, there's the number, there
12 are the named inventors, and then there's WARF.

13 Professor Sohi is a full professor. He's the past
14 chair of the computer science department. And here are
15 photographs of the three students. You already met
16 Dr. Breach.

17 Here are the particular Apple products that are
18 alleged to infringe in this case. This is the back of
19 an iPhone product and we're showing the A8 processor.
20 And it's part of the A8 processor where the infringement
21 takes place. And one of the beauties of Professor
22 Sohi's invention is it doesn't take up a lot of space in
23 the processor. It does its magic with a very small
24 number of circuits using very little power. So it
25 increases performance without having much of an effect

1 on the power needs, which is very important for
2 something such as a smartphone.

3 As I mentioned, the processor is like a brain.
4 Here are three topics that we're going to cover. As I
5 mentioned, a computer memory is like a filing cabinet
6 for information. And I'm going to introduce a couple
7 words here. One I've already mentioned. When the
8 information is going from the memory to the processor,
9 it's called a load. And when the processor is sending
10 the information back to the memory, it's called a store.

11 So here is a little more detail than what I drew
12 up. The first instruction is load 3 from memory. Here
13 is the second instruction. Here is the addition, and
14 now I'm going to add something to that. We have a 7 and
15 then we're going to store the 7 back to memory.

16 So this is an animation to give you an idea, first
17 of all, when computer instructions are executing in
18 their normal order. Each of the blue cars is a computer
19 instruction. And this is the way it used to be done.
20 Execution in program order.

21 Now, the program order can lead to bottlenecks, and
22 here is an illustration of that. So we have this truck
23 3 -- we've all been behind a truck like that -- and all
24 the other instructions have to wait. So there's wasted
25 time as a result.

1 Now, the order execution can increase performance.
2 And here is an example. Now, the instructions are being
3 executed out of order. The other instructions aren't
4 waiting on instruction 3, the red truck, and we have
5 better performance.

6 Dependent load-and-store instructions must execute
7 in the right order. So let me first illustrate this.
8 We see the blue instructions going by, and here we see
9 the car 8 getting behind truck 3. And computer people
10 would say load-8 loading information from memory is
11 dependent on store-3; that you can't not load-8 go by
12 until truck 3 is executed. They're dependent. And if
13 there isn't the computer waiting, then the computer may
14 make a mistake trying to increase performance.

15 So computer people will also use another word, they
16 say it's called *speculation*. But here is a way to think
17 about it. They want to have a way to predict what's
18 going to happen, where with the large complexity it's
19 very difficult to know at any fraction of a moment in
20 time which instruction is dependent on another. So the
21 computer could speculate that they're not dependent.
22 Take a guess. Taking an educated guess or trying to
23 predict. And that's the basic problem that's being
24 attacked.

25 So what if you don't know a store-3 must come

1 before load-8? You might speculate that they're not
2 dependent, and I'll show that. Well, it looks like it
3 worked out okay. It was a correct speculation. There's
4 no dependency, speculation was correct, speed improves.
5 Hurray.

6 But what if the opposite is true? What if there is
7 a mis-speculation if load-8 and store-3 are dependent,
8 then there's a mis-speculation, and that's what this
9 misrepresents. What does the computer then have to do?
10 It's worse than just slowing down. The pipeline needs
11 to be flushed and all that work needs to be thrown out.
12 And the computer has to do work to flush the pipeline.
13 And then all the work has to be redone, making sure
14 those two dependent instructions are executed in the
15 correct order.

16 So this is an article back in 1996 where Professor
17 Sohi is sharing with the world his thinking about this
18 problem. At the time in 1992, '93, '94, in that time
19 period, computers were getting pretty good. And a way
20 to think about the complexity of the computer is how
21 many transistors are there on a little computer chip.
22 And the transistor is the equivalent of a little switch.
23 It's just on or off, and all digital computers have them
24 and the more transistors you had, the greater the
25 complexity but also the greater the computing power.

1 And at that time, the chips had one million, two
2 million, three million, roughly that number of
3 transistors. Now, Professor Sohi, he's not thinking
4 about five and ten transistor computers, he's thinking
5 about hundreds of millions, 200/300 million, and indeed
6 he's thinking about in the future that there will be
7 chips made with over a billion transistors. He is
8 focused on the future.

9 Here are the Apple infringing processors. Those
10 are the computer chips in each of those infringing
11 products. And the A7, which first came out with the 5s
12 iPhone, had reached the \$1 billion milestone. And the
13 A8 went to \$2 billion transistors, and the A8X had 3
14 billion. The earlier processors, like the A6, had fewer
15 transistors and they did not use Professor Sohi's
16 invention, which was oriented to more complex computers.
17 And in fact, the A6 had a number of transistors where
18 the jump from A6 to A7 increased the number by roughly
19 50 percent.

20 Now, others were working on this problem; IBM, then
21 the biggest computer company in the world. There was
22 another very big computer company in the United States
23 and actually worldwide at the time called Digital
24 Equipment Corporation, and for a time it was the second
25 largest computer company in the United States, and with

1 IBM and Digital Equipment and other companies were
2 working on this problem. And they thought that they had
3 solved it. They first thought that this problem that
4 Professor Sohi and his students were studying was
5 infrequent and they said we've got it good enough.
6 We're within one percent of being perfect. And I should
7 say in addition to IBM and Digital Equipment, there were
8 other people in academia and other corporations around
9 the world trying to solve this problem. And they were
10 all essentially going left. They had taken the left
11 fork in the road thinking that they had solved it.

12 But remember Professor Sohi and his graduate
13 students are looking over that horizon. And what they
14 come up with is really completely different. Over time
15 it was shown that what IBM and DEC did not only didn't
16 solve the problem, but there was scant evidence that it
17 was used -- their technology was actually used by them
18 or by others and certainly it's not being used today,
19 and in contrast the small group of four people in
20 Madison took a different fork, went in a different
21 direction, and they found a solution for the future.

22 So you will hear these words: Load-store
23 dependency predictor or LSD, because that's how the
24 Apple engineers studying this problem called what they
25 were working on. They were trying to work on an LSD

1 predictor. And as you know, we're talking about the
2 load-and-store instructions between the memory and the
3 processor. We're trying to look whether they're
4 dependent and we're trying to make a prediction for
5 something that will happen in the future.

6 What did they do? And this is just an example of
7 some of the things they do -- did. They tried to use
8 Digital Equipment technology that they had learned about
9 to use in their A7, and it didn't work. And they tried
10 to use another kind of Digital Equipment technology that
11 they knew about. It didn't work. And then they tried
12 to design without a predictor, and that didn't work, and
13 they tried many, many other things.

14 And in fact, they were having a problem. Now, they
15 have very good engineers, but as you can see here, this
16 engineer, Peter Bannon, was saying in an email the LSD
17 errors cause such a train wreck in the pipeline, we
18 can't afford to come up short on this because they have
19 a timeline to get the product to market and they want to
20 meet their goals and they've got to solve this problem.
21 And eventually, the way they solve this problem is to
22 use the very technology that Professor Sohi and his
23 graduate students had developed.

24 So you will hear from Professor Tom Conte. He's
25 with the Georgia Institute of Technology, one of the top

1 technology schools in the country and president of the
2 IEEE computer society. And Professor Tom Conte is here
3 in the courtroom and you will hear from him later this
4 week. You'll hear what he did to study the question.
5 Is the A7, is the A8, are those processors infringing or
6 not infringing. Here are those products and those
7 processors and all of them have LSD predictors that
8 infringe.

9 Now, you'll hear that Apple says well, they have
10 some defenses. And they'll say there really isn't
11 infringement.

12 This is claim 1 from the patent. At the very end
13 of the patent, this describes the metes and bounds of
14 the intellectual property in much the same way metes and
15 bounds are describing real property. And I'm going to
16 highlight the basic Apple arguments that we think we'll
17 hear from them about during the course of this trial.

18 One of them has to do with attempting a
19 mis-speculation. They say they don't detect a
20 mis-speculation. But any kind of predictor looking at
21 load-store dependencies has to be able to determine
22 whether there is a mis-speculation. Because if you
23 can't determine that, you don't know when you need to
24 redo the work. So they do detect and determine that
25 there is a mis-speculation and you'll hear some

1 testimony and evidence about that.

2 They also say well, we don't really do this other
3 item -- and I'm going to come back to that -- associated
4 with the particular data consuming instruction, and they
5 don't do the third thing that I just highlighted. So
6 I'm going to go through each of these.

7 And first with the mis-speculation. Here is that
8 same claim language. Let me go back, by the way, to the
9 claim for a moment. They -- the words mis-speculation
10 appear a few different places in the claim and wherever
11 it appears they say well, we also don't do it there.
12 It's mis-speculation. But the great bulk of the
13 language in this claim, these are engineering words such
14 as in a processor -- you now know what a processor is,
15 capable of executing program instructions in an
16 execution order differing from their program order, you
17 have some idea what that is -- but the great bulk of
18 what is in the claim describing the actual invention is
19 either not in dispute or not seriously in dispute and I
20 think it's basically these three arguments that we may
21 hear about.

22 So here is the first argument. But Apple admits on
23 detecting a mis-speculation that mis-speculations occur.
24 Apple recovers from the mis-speculations. And, of
25 course, logically Apple must detect mis-speculations to

1 recover. So what their lawyers may be doing is trying
2 to change the words in the claim to have an additional
3 requirement. But the metes and bounds that define the
4 patent claim are what's granted by the Patent Office, no
5 more, no less, and they would like to add words such as
6 this.

7 Mis-speculation, again Apple says loads don't
8 access memory. But Apple engineers call it memory or
9 memory subsystems. And here is another one of their
10 arguments that relate to these particular words
11 associated with the particular data consuming
12 instruction. And again, Apple, through its lawyers'
13 presentation, will try and add some words to the claim.

14 But even with Apple's rewriting, Apple engineers
15 admitted, even with that rewriting, that they infringe
16 99.9 percent of the time. And there would be an
17 infringement even if it was 5 percent or 10 percent or
18 20 percent of the time. So even with the rewriting,
19 there is the infringement.

20 And then next Apple will say if you don't believe
21 those two arguments, here is the next one. It relates
22 to a prediction within a predetermined range. Again,
23 there's an attempt to add words to the claim to change
24 the meaning. So Apple is effectively trying to rewrite
25 the claim and change what the patent --

1 THE COURT: Mr. Chu, there's a limit to --
2 there's argument and there's facts and I'd like you to
3 get to any further facts --

4 MR. CHU: Yes. Thank you, Your Honor. So then
5 the argument is if it's infringed, if you don't believe
6 all the other arguments, then the patent is invalid.

7 And here are the basic facts that you'll hear about
8 on the question of whether a patent is invalid for
9 obviousness. You'll hear facts about a person of
10 ordinary skill in the art, not extraordinary, and that
11 person is assumed to know about the prior art. And the
12 question is would it have been obvious to that person of
13 ordinary skill at the time of the invention.

14 You'll also hear about objective evidence that the
15 invention was not obvious, and I'll give a few examples
16 of that evidence. One type of evidence is whether the
17 patent was licensed. If it was licensed, some unrelated
18 third party decided to take a license. That would be
19 objective evidence of nonobviousness.

20 Another is whether the inventors were proceeding
21 contrary to accepted wisdom in the field, which was in
22 this case. And the third area, among others, is whether
23 there was praise in the field and awards when they
24 recognized the value of the invention. And I'm just
25 going to talk about one of these categories today.

1 Was the patent licensed? Well, a number of years
2 ago WARF had to defend its patent, the same WARF patent
3 involved in this suit, by filing suit against Intel
4 here. And then the case proceeded. There were a lot of
5 -- there was a lot of information exchanged. And
6 eventually when all was said and done, Intel agreed to
7 take a license. And this is just part of it, showing
8 that it is the '752 patent that was being licensed by
9 Intel. It was settled out of court. There was no need
10 for a trial.

11 Now, they're going to point to Hesson and Steely,
12 two pieces of prior art, as Intel had done, and here are
13 the face pages of those two patents: The Hesson IBM and
14 the Steely Digital Equipment patents. And these are two
15 pieces of prior art that the Patent Office already
16 considered in granting WARF the patent. And in
17 addition, the evidence will show that IBM and DEC had
18 failed to truly solve the problem, because if they had,
19 then the world would have beat a path to their door.
20 They would have used it in all their high-end computers
21 and the like. And we'll have evidence about that as
22 well.

23 Next Apple's lawyers will say well, if that doesn't
24 fly here, they're going to point to the Chen papers.
25 There's a Dr. Chen. But there are key differences

1 between what Dr. Chen was discussing. He was discussing
2 in-order processing, not out-of-order processing, which
3 has evolved here. The Chen papers discuss a static way
4 of doing this and not dynamic. Let me stop for a moment
5 and discuss what I mean by dynamic.

6 If I were to provide a very short summary of the
7 invention, we're going to have much more testimony of
8 the details. It is a computer circuit. It is hardware.
9 And it is a very, very small piece of hardware. And
10 it's intelligent and wise in making predictions, and in
11 addition, it's dynamic. It's learning all the time.
12 It's getting smarter and smarter all the time.

13 Going back to the Chen papers, they are static, not
14 dynamic and always learning. And Dr. Chen is using
15 software or a hybrid combination of software and
16 hardware as opposed to this hardware solution. And then
17 they'll say well, if you don't believe the arguments on
18 the Chen papers, let's go to the EV6 and the EV6 is a
19 Digital Equipment chip and that Digital Equipment chip
20 shares a lot of the same characteristics as the Steely
21 reference. It's more primitive than Steely and Steely
22 was already considered by and before the Patent Office.

23 We've summarized key aspects of the United States
24 patent clause. And in conclusion, the evidence we
25 believe will demonstrate that Apple infringes. And I

1 should tell you that that's our responsibility. That's
2 WARF's responsibility to come forward with the evidence
3 to persuade you. And now the WARF patent is valid, but
4 that's the responsibility of Apple. They have to come
5 forward and persuade you.

6 You've been a terrific group of jurors. I thank
7 you very much for your attention.

8 THE COURT: Thank you, Mr. Chu. And now, we
9 will hear opening statement for the defendant Apple.
10 Mr. Lee.

11 MR. LEE: Could we switch the mic? Can I
12 borrow the portable mic?

13 THE COURT: Oh, sure. I assume someone is
14 doing it because I'm not going to.

15 MR. LEE: I think we're going to do it
16 collectively, Your Honor. May I proceed, Your Honor?

17 THE COURT: Please.

18 MR. LEE: Your Honor. Ladies and Gentlemen of
19 the Jury. As I mentioned earlier, my name is Bill Lee,
20 and together with my colleagues Dave Marcus, Jim Dowd,
21 and Cathy Cetrangolo, we represent Apple. With us today
22 are Gerard Williams, who is actually the person who
23 designed the real world chip that is in the iPhone and
24 the iPad; and Iain Cunningham, the Director of
25 Litigation at Apple.

1 Let me begin by saying the same thing that Mr. Chu
2 did. Let us begin by thanking you for giving us our day
3 in court. We know from the voir dire that each of you
4 is busy with your own individual lives and jury service
5 imposes a substantial burden on you. But this case is
6 important. It's important to WARF for the reasons that
7 Mr. Chu just related to you. But it's important to
8 Apple, the company that brought to the marketplace, that
9 invented the iPhone and the iPad which now stand accused
10 of infringement. It is important to the Apple
11 engineers, like Mr. Williams, who actually independently
12 developed, without any knowledge of the WARF patent or
13 the WARF research, the products that we see every day
14 and in every context. And it's important to the many
15 people who've relied upon Apple to invent and innovate
16 for decade after decade.

17 Now, as you listened to Mr. Chu, you may have been
18 asking yourself if everything he says is true, why are
19 we here? We're here because there are two sides to the
20 story and His Honor told you until both sides of the
21 story are told, until you've heard all the witnesses,
22 until you've seen all the exhibits, you will not have
23 the complete picture or see the complete puzzle.

24 And when you have the complete picture and the
25 complete puzzle, you will learn some things that WARF

1 did not tell you in its opening. And before I take you
2 to the story in a chronological order that will put the
3 various facts you just got in detail in a way that will
4 make sense we suggest, I want to give you two examples.

5 THE COURT: Mr. Lee, I suspect your mic is not
6 on. I don't know that for a fact. It will come in
7 better if you --

8 MR. LEE: Better? So let me give you two
9 examples. Do you remember where Mr. Chu said that
10 Dr. Sohi was looking over the horizon and he saw future
11 computer chips with billions of transistors? You will
12 read the '752 patent forever and not see a mention of
13 billions of transistors. You will not find that
14 prediction in the patent that you are going to have to
15 review. You're not going to find any prediction about
16 billions of transistors because the words aren't in
17 there.

18 Let me give you another example. Mr. Chu said, and
19 I agree with him on this, referring to some of the
20 others scientists who worked in the field, if they had
21 solved the problem, the world would have beat a path to
22 their door. Do you remember that just a few minutes
23 ago? So let's talk not about Dr. Sohi's body of work,
24 not about Dr. Breach's other work, but let's talk about
25 this patent because that's the only thing that's going

1 to be before you.

2 And what will the evidence show? The patent has
3 existed for 17 years. It was issued 17 years ago by the
4 United States Patent Office. Now, keep in mind what
5 Mr. Chu said. If they had solved the problem, the world
6 would have beat a path to their door. Well, for the
7 first two years after the patent issued in 1998, it
8 literally sat on a shelf. No one did anything with it
9 at WARF. No one did anything with it at U.W.

10 Two years later, more than two years later, WARF
11 decided it would try to license the patent to the major
12 computer manufacturers in the United States: IBM,
13 Hewlett Packard, Compaq, Digital Equipment Corporation,
14 AMD, and Sun. Those companies said no thanks.

15 Now, two things. If they had solved this problem,
16 solved the horizon, do you think all those companies
17 would have said no thanks? No. They would have done
18 just what Mr. Chu said. They would have beat a path to
19 the door of these four inventors.

20 But there is a reason they said no thanks. And
21 you're not going to have to take my word for it. The
22 lead inventor on this patent actually is Dr. Andreas
23 Moshovos. He won't be here to testify live as far as we
24 know, but we're going to show you his deposition, the
25 lead inventor, the person who did the work that's in

1 this patent, not WARF. And here is what he said in an
2 email back in 1998, 17 years ago. "I fully respect that
3 DEC and later IBM identified the same problem earlier
4 than we did."

5 Who's looking over the horizon? Who's identifying
6 the problem? And what you're going to learn is that DEC
7 and IBM not only identified the problem earlier, they
8 came up with their own solutions. That's why they said
9 no thanks.

10 In the 17 years since the patent issued, think
11 about all that has occurred in your own personal lives
12 in the development of computing devices. In that 17
13 years, one company has taken a license to the patent,
14 and that's Intel. That was in 2009 after WARF sued
15 Intel. But there are some additional facts that WARF
16 didn't tell you about in its opening.

17 Intel funded the research in 1994 that led to this
18 patent. Dr. Moshovos and Dr. Sohi presented the results
19 of the work to Intel scientists. They provided them
20 written summaries of that work. Intel thought it had a
21 right to use that research. But after it got sued, it
22 settled because WARF said no, you don't have a right to
23 use it. That's the only license, the only license in 17
24 years. That's not beating a path to your door.

25 Now, in contrast you're going to learn that Apple

1 didn't fund the research. Apple didn't have any
2 relationship with the University of Wisconsin
3 scientists. Apple never talked to them. Apple never
4 met with them. In fact, Ladies and Gentlemen, Apple
5 didn't even know about the patent when it was designing
6 products that are going to be before you. They didn't
7 know a thing. But nevertheless, WARF accuses a chip in
8 Apple's iPhones and iPads, and I have them and you'll
9 see them and you'll be able to hold them, the iPhones
10 and iPads. These are the accused products. And since
11 they're the accused products, let me tell you a little
12 bit about them.

13 In 2007, Apple introduced the iPhone. It's a
14 smartphone with an intuitive, easy-to-use touch screen
15 display. This in my left hand is one of the original
16 iPhones. In 2010, it introduced the iPad. And in my
17 right hand is one of the original iPads, the first
18 commercially successful tablet computer.

19 The iPhone, the iPad were invented by Apple
20 engineers, Apple scientists, who put enormous time,
21 effort, and energy into developing these products. Over
22 the years, one of the things they developed is something
23 that Mr. Chu referred to as the A7 chip. You'll get to
24 hold this at some point during the evidence.

25 This is the A7 chip. This is what the Apple

1 engineers developed that took the power of that laptop
2 sitting before Mr. Chu and put it in this chip so that
3 it could be used in these products. That's a result of
4 the effort and innovation of the Apple scientists. And
5 that's what stands accused of infringing.

6 Now, you learn that the WARF scientists actually
7 never made a chip. They actually never made a working
8 product. They never worked with anybody else to make a
9 working product. Now, we're not saying that they
10 should. They're faculty members at a university. They
11 do research. They publish papers. That's the work that
12 they do. But what you will learn from the evidence is
13 there's a difference between writing a solution on paper
14 and then ultimately designing a chip that can work in
15 real world products that you can use every day.

16 So I promised that I would give you the story in
17 chronological order and that's what I'm going to try to
18 do now. The slide on the screen will tell you the four
19 chapters, which I hope is a logical progression of the
20 information that you will need to decide the case:
21 We'll talk about the technology, but particularly what
22 was known before; we'll talk about the development of
23 WARF's claimed invention; we'll talk about Apple's
24 independent development 15 years later of its own
25 solution, and then I want to come back to where Mr. Chu

1 ended, which is why are we here.

2 Now, before I go into the technology, you're going
3 to find that we agree on many basic parts of the
4 technology because all of this was known before anyone
5 at Wisconsin started their work. Mr. Chu mentioned
6 several times that the scientists who were on the patent
7 were at the University of Wisconsin-Madison. It's true.
8 We also know we're in Madison, the home of the
9 University. We're not here to say the University is
10 anything other than a great institution. We're not here
11 to criticize Dr. Sohi's body of work. That's not the
12 issue. The issue is there's a specific patent with
13 specific requirements that has a specific history, and
14 the mere fact that it came from Madison doesn't mean
15 WARF wins. It doesn't mean WARF loses. Instead we're
16 in the United States District Court before a judge
17 appointed by the President of the United States where
18 everybody gets a fair shake, WARF and Apple. And all
19 we're asking you to do is listen to the evidence, put it
20 in its context, give it your best evaluation, and give
21 us your best judgment.

22 Now, if I turn to the technology, let me go to the
23 first chapter. And I start -- I will start with the
24 technology because that's what the case is about. The
25 details of the technology matter. I'm going to take you

1 through it now in a few minutes. I promise that my goal
2 is not to bore you after lunch with the details. The
3 details will become important as we move through the
4 case.

5 You will hear from Dr. Robert Colwell.

6 Dr. Colwell, stand up now. Dr. Colwell has 40 years of
7 experience working in the field of computer
8 architecture. You've heard of the Intel Pentium
9 processor. You may have seen advertisements. You've
10 heard about them in computers. This is the chief
11 architect of the original Pentium processor, the man who
12 helped designed a chip that was in 80 percent of the
13 computers over a long period of time.

14 He is going to tell you the history of what
15 happened in this field. He will tell you how many
16 different people working on the same problem, just as
17 Dr. Moshovos said, and how others had developed
18 different solutions. And that's the key. Different
19 solutions.

20 Now, as Mr. Chu said, the case involves processors.
21 Each of us, and we know that some of you have, have used
22 computers, whether a desktop, a laptop, a smartphone.
23 They all have processors. Processors are the brains of
24 the computer and they execute millions and millions of
25 instructions per second.

1 The instructions are stored in a memory. The
2 processor goes to the memory, it fetches or grabs the
3 instructions, and then the processor executes them. 3
4 plus 4 equals 7. Every instruction causes the processor
5 to perform a specific test or operation. Every
6 individual task is small: 3 plus 4 equals 7. 2 plus 2
7 equals 4. But because modern processors are capable of
8 executing billions of instructions per second, the
9 computer is capable of accomplishing those tasks in a
10 fraction of a second.

11 The functions we all know about: Sending email,
12 sending photos, downloading a video, surfing the
13 internet are based upon a really discrete set of
14 instructions that are repeated over and over and over
15 again. Dr. Colwell will explain to you that these
16 concepts were known for decades. The WARF inventors
17 have testified to the same.

18 One particular type of instruction is important
19 here. It's a memory instruction. And these
20 instructions move information in and out of memory.
21 They're called *memory instructions*. As you can guess,
22 these instructions are an important part of any program.
23 You need to get the information out before you can use
24 it.

25 So let me talk to you about two. A store

1 instruction involves storing or writing data to a
2 specific location. You can think of this example. If
3 you make a deposit in your bank account or withdraw from
4 your bank account, you want to update the amount of
5 money that's in your checking account. The store
6 instruction says I've deposited \$100. I've withdrawn
7 \$100. Load instructions involve reading the loaded data
8 from the memory location. So now after you've updated
9 your checking balance by depositing \$100, the load
10 instruction says okay, what's my checking account
11 balance? I can go and find out. It's been updated with
12 my deposit. It's accurate.

13 Now, every computer program, no matter how complex,
14 is just a list of instructions telling the computer what
15 to do, like a recipe. It's called, to computer
16 scientists, *program order*. It can be important for the
17 processor to execute instructions in program order. For
18 example, if you had been selected as jurors before the
19 court -- for example, you had to be selected as jurors
20 before the Court could give you the instructions it did
21 right before the lunch break. The instruction to start
22 the trial, for Mr. Chu to open, for me to open was
23 dependent upon your being seated and sworn. But other
24 instructions can be executed out of order: The
25 instruction to move the exhibits into the room; the

1 instructions to set up the video screen; the
2 instructions to review his instructions with the lawyers
3 are not dependent on your being seated. They could be
4 done in any order before you're seated, and by doing so,
5 we save time.

6 The same exact thing is true for store and load
7 instructions. Some store and load instructions need to
8 be executed in program order. Others can be executed
9 out of order. Again, Dr. Colwell will explain to you
10 that these concepts had been known for 40 years before
11 the time the WARF patent was filed.

12 So when must a store and a load instruction -- when
13 must store and load instructions be executed in order?
14 The answer is whenever you have a store instruction
15 followed by a load instruction, which is what's shown on
16 the screen right now in Slide 1-9. Whenever the store
17 is going to the same location, the load is accessing.
18 They have to be executed in program order.

19 Computer memory is a little bit like each of the
20 locations has an address, just like your house has an
21 address. And so what is known here is the number 5
22 needs to be loaded to this address, and when it's loaded
23 or read, it's read with the same address. Now, if
24 what's being stored is your \$100 deposit to your
25 checking account, you want that to be stored at the

1 right address before you read out your balance,
2 otherwise the balance will be wrong. They're dependent.

3 When they're dependent that way, they have to be
4 executed in the right order, otherwise in my bank
5 account example you would get a bank -- checking account
6 statement that was either too low or too high.
7 Whichever it is, you'd be getting the wrong information.

8 But there are other instructions that can be done
9 independently. And if I go to Slide 1-10, in this
10 example the store storing the value 5 is going to one
11 address, 1 Oak Street. But the load is coming from a
12 different address. If that's true, they could be
13 executed out of order.

14 So imagine that what's happening here is that in
15 the store, we're storing your \$100 to your checking
16 account. But when you go to the ATM, what you want to
17 do is read out what's in your savings account, not your
18 checking account. And you go to this location and you
19 read out what's stored there and you get your savings
20 account balance. They can be done out of order because
21 they're not dependent upon each other.

22 Now, if you can do that because they're
23 independent, you can save time. Some instructions are
24 dependent, some instructions are independent. Some have
25 to be executed in order, others can be executed out of

1 order.

2 For decades, as Dr. Colwell will tell you,
3 processors -- way before the 1990's, processors were
4 designed to speculate. And speculate means guessing at
5 whether you could execute a loaded instruction out of
6 order; guessing whether you could save some time by
7 executing out of order. It means taking a chance. If
8 it turns out that the instructions are independent, like
9 our checking and savings balance accounts, then it's
10 fine. Going out of order will not be a problem, and as
11 we said, it probably will save some time.

12 But if it turns out the two instructions are
13 dependent, a deposit to your checking account, a
14 statement of what's in your checking account, then going
15 out of order will actually result in what's called a
16 mis-speculation or a mistake. You will learn that when
17 a mis-speculation happens, when you read out your
18 checking account balance before the deposit has gone in,
19 the processor has to go back and it has to squash --
20 that's literally the word -- squash what has happened
21 before, start over again, and make it happen.

22 It was as if before you were sworn as jurors,
23 Mr. Chu and I decided to give our openings. Those would
24 be two dependent events. If we had done that, we would
25 have had to squash what we had done, wait for you to be

1 selected as jurors, and then done the openings again.

2 It would have cost time and effort.

3 Now, in my very simple examples it sounds like not
4 much, but in something like these products that are
5 executing millions and millions of instructions every
6 second, squashing, going back, doing again is a problem.

7 So what did scientists do? They created
8 predictors. And again, Dr. Colwell will explain
9 predictors were known for decades before the 90's.
10 Predictors are a little bit like what they sound. They
11 are something that watches the instructions and make
12 predictions. Predictions had been -- predictors had
13 been inventors -- invented and used before the 1990's.

14 That's the basic technology. And if it sounds as
15 if Mr. Chu and I were saying the same thing on loads,
16 stores, and these other concepts, it's not a
17 coincidence. These are concepts that were out there
18 long before the work of Mr. Moshovos and his colleagues
19 in the 1990's.

20 Now, to make those concepts work in products like
21 these is not easy. It requires a lot of sophisticated
22 technology and a lot of sophisticated work. This case
23 is just what Dr. Moshovos said. It's about a whole
24 bunch of different scientists, some at the academy, some
25 in the industry world who were all looking at the same

1 problem, all armed with the same basic concepts, and all
2 of whom came up with slightly different solutions, and
3 in some cases, the same solution. And at the end, this
4 case is about which of those solutions actually works;
5 right? And which do not.

6 Now, you don't have to take Dr. Colwell's word for
7 it alone. I've put on the screen the concepts we've
8 just gone through. I'm not going to repeat them because
9 Mr. Chu and I now have both been through them. The
10 evidence will establish that every single one of those
11 concepts was developed, published, publicly disclosed,
12 and actually put into real world working products before
13 Dr. Moshovos started his work.

14 Why is this work important? It's important
15 because, as you learned from the video, a patent is only
16 valid if it's new and different and unobvious.

17 Now, Mr. Chu made the point that the patent was
18 issued by the Patent Office. It was. We don't deny
19 that. But the video told you about the process and told
20 you exactly why we have an opportunity to bring to you
21 evidence that the Patent Office didn't hear. WARF
22 scientists' own documents, documents that the Patent
23 Office didn't have and which we got only after we got
24 sued by WARF, will show that they are addressing the
25 same problem that many other folks were and folks came

1 up with different solutions and sometimes the same
2 solutions, all addressing the same problem with these
3 basic concepts.

4 Now, as I said, the lead inventor on this patent,
5 not Dr. Sohi's body of work on this patent, which is the
6 only patent before you, was Dr. Moshovos. And I said to
7 you before, the lead inventor has acknowledged all of
8 this work going on by others, including at IBM and DEC.

9 On the screen right now is the email that I
10 referred to you earlier on. Think about what
11 Dr. Moshovos is saying, and this is what the evidence
12 will show. Dr. Moshovos is saying just because we at
13 U.W. are working on the same problem that others have
14 identified earlier doesn't mean we're using their
15 solution. It doesn't mean that we're coming up with
16 something that copies them. We agree. Just working on
17 the same problem doesn't mean that you're coming up with
18 the same solution. But that's exactly what WARF now
19 accuses Apple of, working on a similar or the same
20 problem and therefore coming up with the same solution.

21 So let me tell you now chronologically a little bit
22 about the work of these other people, all of which was
23 known before. On Slide 15 is something called the
24 *Hesson patent*. As you can see, it refers to a memory --
25 it refers to a memory dependence prediction. This is

1 the very work that Dr. Moshovos was referring to in his
2 internal email. There's no dispute that this work came
3 before the '752 patent. In fact, it was filed two years
4 before the WARF patent was even filed. Dr. Moshovos's
5 emails tells us this work was earlier work. The Hesson
6 patent tells us in its titling that it's an invention
7 to, and -- if I could highlight -- dynamically control
8 the out-of-order execution of load-store instructions to
9 a processor.

10 So if I just draw your attention to this earlier
11 patent from IBM, this is the concept that they are
12 describing. This is the concept on which they received
13 an invention. And when you see it, and Dr. Colwell
14 takes you through it, you'll see that it has load
15 instruction, store instruction, speculation,
16 mis-speculation, predictors and predictions. It is one
17 of several predictors that you'll hear about.

18 And what I'm going to do is accumulate them, and
19 this is just a little graphic, it may seem a little
20 silly, but we're going to show you all of the different
21 detectors, different ways of addressing different
22 problems. A second one was Digital Equipment
23 Corporation, a major computer manufacturer. This is the
24 work of someone named Dr. Steely.

25 Dr. Colwell will tell you this, as well as what was

1 on the screen now in Slide 18. This was four years
2 before the WARF scientists even started their work. The
3 patent talks about load instructions, store
4 instructions, speculation, mis-speculation, and
5 describes DEC's solution. This is, on my little graphic
6 of Sherlock Holmes, yet another different predictor
7 using these old, well-known concepts to address, as
8 Dr. Moshovos says, a problem they knew about for years.

9 You've learned about something called the EV6 on
10 the screen now in Slide 20. This is a real world
11 product, a chip made to go into a real world functioning
12 product. It was a data dependent solution that was done
13 before the '752 patent. It allowed load instructions to
14 speculate. It had a store instruction, it used a table,
15 it used it to prevent speculation, and it was sold and
16 put into computers, Compaq computers, that were in the
17 marketplace.

18 And you will learn about the work of Professor
19 William Chen and others at the University of Illinois.
20 They too developed data dependence predictors before the
21 '752 patent. Now, Mr. Chu's opening suggested that it
22 was different. The only difference between the work of
23 Dr. Chen and what WARF inventors say is their invention
24 is that he did it and in a combination of hardware and
25 software rather than just hardware. Same technique,

1 same everything, but just in hardware and software
2 rather than hardware.

3 Now, you remember Dr. Moshovos acknowledged the
4 work of IBM and DEC? Dr. Moshovos's Ph.D. dissertation
5 also described the earlier work of Dr. Chen. And that's
6 what's on Slide 24 from Exhibit 004. And what you can
7 see is he says -- he said back then in his Ph.D.
8 dissertation exactly what we're saying to you now, he
9 used a software-hardware hybrid approach before
10 Dr. Moshovos and his colleagues to come up with their
11 own solution.

12 Now, Dr. Colwell will describe to you all of this
13 work: The basic concepts, different people working the
14 field, the different solutions, and what each technique
15 was. Dr. Moshovos, we'll show you his deposition,
16 studied all of this work that had been done by the
17 others before, before he came up with the other three
18 inventors with their specific solution.

19 This brings me to Chapter 2, the development of
20 WARF's claimed invention. Now, as Mr. Chu said, we
21 start back around 1994 and Dr. Sohi and his three
22 graduate students are working on something called the
23 investigation of a multiscalar paradigm. This patent
24 isn't about the investigation of the multiscalar
25 paradigm. It's not about all of the work these folks

1 did. It's about one very specific aspect of the work
2 that Dr. Moshovos put in his Ph.D. dissertation, and
3 that will be the focus. That's why I can say to you
4 we're not here to criticize at all the body of
5 Dr. Sohi's work. He's been applauded for it. We
6 applaud him for it. We're looking at this specific
7 patent.

8 So the WARF scientists claim, as you heard, to come
9 up with the idea in 1995. Over the next few months they
10 ran some simulations. They published some articles.
11 And you'll see articles published and articles praising
12 those published articles. But again, they never built a
13 processor. They never tried to built a processor. They
14 never tried to make it work in a smartphone or a tablet.
15 In fact, the iPhone and the iPad weren't invented for
16 another decade.

17 Instead what you'll learn is that after
18 Dr. Moshovos had done his Ph.D. dissertation, the one
19 thing they did is go to WARF and ask to file a patent
20 application. That resulted in the '752 patent, which is
21 now on Slide 28. And Mr. Chu has drawn your attention
22 to the title -- the time it was filed, which is 1996.

23 But I want to draw you to a couple of important
24 things that were said in the patent that will help put
25 this all in chronological context. If I go to Slide 29,

1 this is a statement from their patent. This is a
2 statement that they made to the Patent Office when they
3 were seeking their patent.

4 And what it said is, referring now to Figure 3, and
5 you'll see the full patent, "The normal operation of the
6 data speculation circuit," remember that's what Mr. Chu
7 was talking about, "such as is known in the prior art,
8 must be modified slightly to accommodate the present
9 invention."

10 So what was this slight modification? What was
11 this specific solution? How was it different than what
12 was done before? And the answer is in the claim. And
13 you're going to look at this and say oh, my gosh, look
14 at all these words. They're pretty technical. They
15 are. They're pretty dense. They are. The reason there
16 are so many words is that every word counts and these
17 are the words they had to use to describe what they said
18 was different in order to get a patent. And every
19 single one of those words counts, both for infringement
20 and for validity.

21 So let me show you some specific requirements of
22 the patented claim. If I could go to Slide 31. Mr. Chu
23 referred to a portion of this, but I want to refer to a
24 little more context. First, the claim requires
25 detecting a data dependence but also detecting a

1 mis-speculation. You'll see there is a detection of
2 both. So the patent requires that you both detect that,
3 my two instructions are dependent on each other, and you
4 detect that there's been a mis-speculation because the
5 load has mistakenly gone before the store. It's reading
6 the bank account balance before the deposit and giving
7 you the wrong answer. That requirement is right in the
8 claim and has been construed by the Court and those are
9 the words that have to govern the analysis you do.

10 A second requirement in the claim on Slide 32 is
11 that you produce a prediction associated with a
12 particular data consuming instruction. Now, remember
13 this patent prosecution process is a secret process, as
14 the video said. We didn't get to participate. No one
15 else got to participate, only WARF. WARF had the power
16 of the pen and the words *the particular data instruction*
17 are their words. They put them in as a requirement.
18 And as you listen to the evidence today, in the days
19 that follow, ask yourself this question: Are they
20 walking away from the words they put into the claim in
21 an effort to capture technology that was independently
22 developed 17 years later.

23 And the last limitation I'll draw your attention to
24 is a prediction threshold detector for preventing
25 speculation for instructions having a prediction within

1 a predetermined range. Now, as I said, these are a lot
2 of words, but they're very important words because they
3 define what Dr. Moshovos said was different about his
4 solution. And for each of the three things that I've
5 just drawn your attention to: Detecting and
6 mis-speculation and a data dependence, a prediction
7 based upon a mis-speculation, and a particular load of
8 instruction and the one that's on the screen now, Apple
9 does something different.

10 Now, does Apple use the same basic concept? Sure.
11 Everybody did. But on each of these key things that
12 they put in their patent, we do something different and
13 we had to do it differently to make it work in these
14 products.

15 So what are the others going to show you WARF has
16 done with the patent? As I explained a little bit
17 earlier, after the patent was issued nothing happened.
18 No one was beating down a path to the door. No one was
19 seeking to take a license. Instead, over the next 17
20 years no one took a license but Intel.

21 Now, I said I'd tell you a little bit more about
22 that and here is what the evidence is going to show.
23 The evidence is going to show that in 1994, Intel gave
24 Dr. Sohi's lab the money to fund this research. You'll
25 see it in writing. Dr. Sohi wrote it down in an

1 invention disclosure. Dr. Sohi and his colleagues then
2 presented that work to Intel; invited their scientists
3 to view their work. As you can suspect, Intel
4 scientists thought well, we funded it, it's been
5 presented to us, we might have a right to use it.

6 Ten years later, WARF sued Intel and said no, you
7 don't. Intel took a license and settled a lawsuit in
8 this courtroom. That's the only license for this
9 technology ever.

10 Now, let me go to chapter 3. Apple and its
11 development of its product. Apple was founded in 1976,
12 and I'm not going to go through the history. It's not
13 relevant to the case. But I am going to go through a
14 little bit of a history of the iPhone and the iPad
15 because they're the accused product.

16
17 The iPhone, as I mentioned, was introduced in 1997
18 and it truly changed the way we communicate with each
19 other. Do you remember cellphones before then? Flip
20 phones. Sliders. Backs. Stylists. This is the first
21 in 1997. Since -- I'm sorry, 2007. And since 2007
22 there have been ten different models. Only the three at
23 the bottom, the iPhone 5s, the iPhone 6, and iPhone 6
24 plus are alleged to infringe.

25 If I turn to Slide 37, you'll see that we

1 introduced the iPad in 2010. It's accused. It's an
2 easy-to-use tablet computer and first really of its
3 kind. There have been nine different models. Only the
4 latter four are accused of infringement. The first
5 five, no.

6 Now, most of you are familiar with smartphones, but
7 I don't know how many of you have ever looked inside.
8 So let me just take you inside for a minute so you can
9 see what we're talking about here. On the screen now in
10 Slide 38 is an iPhone disassembled: The screen, the
11 battery, the body. This is the system-on-a-chip you
12 heard about. These are the circuit boards. This is the
13 system-on-a-chip.

14 Let me focus you down a little further from -- on
15 the system-on-a-chip. This is the A7. Remember the
16 thing I showed you that's about the size of my
17 fingernail? That's what this is. That's what
18 Mr. Williams and his team spent 18 months designing.
19 And I'll tell you a little bit about that in a minute.

20 But the system-on-a-chip is a system-on-a-chip.
21 It's a selection of a whole bunch of components. And
22 the focus of Dr. Moshovos's patent is something that's
23 only part of the chip. So within the chip system on a
24 chip there's a CPU.

25 So I've now given you on Slide 40 a map of

1 system-on-a-chip and I'm going to focus on the CPUs.
2 The CPUs, as you can guess, perform hundreds of
3 functions. So let's focus down a little further on the
4 CPUs themselves and what you will see is that the
5 load-store dependency predictor that's at issue in this
6 case is a smaller portion of that. But before I get to
7 that, I've now put on the screen the history of the SoCs
8 for Apple. And I've put on the bottom the different
9 iPhones and iPads that they were in. The only ones --
10 WARF concedes that these don't infringe. The only ones
11 that are accused are the ones on the right that are in
12 red, and that's going to be the focus of our discussion
13 today.

14 Now, within those SoCs, as I said, are the CPUs and
15 within the CPUs we'll find the load-store dependency
16 predictor. But let's talk a little bit about how this
17 A7, A8, and A8X came to be. Dr. Williams is going to be
18 here throughout -- Mr. Williams is going to be here
19 throughout the trial. He's come from California to tell
20 you about his work. He's a very accomplished computer
21 architect. Before he ever came to Apple, he worked at a
22 company called ARM designing real world microprocessors
23 that went into real world products, including those
24 earlier generation of cellphones, flip phones,
25 BlackBerries, PDAs.

1 When Mr. Williams arrived at Apple, Apple was
2 working on something called *Swift* and Swift made it into
3 real world products. It was a real world success. It
4 was in the iPhone 5 and 5c. It had a load-store
5 dependency predictor. But WARF concedes that one
6 doesn't infringe. When Mr. Williams arrived, Apple was
7 working on the next generation, the A7 chip. It's
8 called Cyclone, the one that we just showed you. The
9 goal for Cyclone literally was to take the power of that
10 laptop, the power of your desktop, all of that computing
11 power and put it into this. That was the goal. For the
12 first time you had something in a mobile device that
13 could take all that computing power, be that small, work
14 in this. It's a pretty ambitious goal. No one had ever
15 done it before. No one.

16 They decided to take something called 64-bit
17 architecture from that device and put it into this
18 device. They decided they'd try to create a pipeline
19 from that device and put it into this device. They knew
20 they were trying something that was different than
21 anybody had tried before. So they assembled 100
22 engineers to design the Cyclone processor. It took 18
23 months. There are hundreds of features in that little
24 chip the size of my fingernail and the result was
25 incredible. It worked. And it worked in a real world

1 product. And they were proud of the result.

2 Long before they ever got sued, Mr. Williams wrote
3 something on behalf of his team called *Birth of Cyclone*,
4 and it was to summarize the results of all of the hard
5 work by all of these folks. And he wrote it was a
6 pretty amazing feeling, seeing something like this
7 happen. The team actually pulled it off.

8 Now, within Cyclone there are hundreds of features,
9 and you're not going to have to know anything more about
10 it other than there are hundreds of features. One of
11 them, one of them is the load-store dependency
12 predictor. One of them is what's accused of infringing.

13 Now, it's a feature. Mr. Williams and his team
14 didn't design features in this little chip that didn't
15 have a purpose. But it's one of many. So where is the
16 load-store dependency predictor in Apple's products? If
17 I go back to my teardown, we saw the SoC. Then we saw
18 the A7. We saw the Cyclone processors. And if I now
19 bring up Slide 48, you'll see the Cyclone floor plan.
20 Now, this is just a floor plan. It doesn't show you all
21 the features, and we never claimed that it did. But
22 within Cyclone, to do all these different things, it
23 makes it possible for you to take pictures, take videos,
24 download videos, surf the web, make telephone calls
25 still. There's something called the MDR.

1 Within Cyclone the MDR is called the *mapper*
2 *dispatch retirement*, and within that unit, if I go to
3 the next slide, you will see the load-store dependency
4 predictor. That's the focus of this case.

5 Now, as I said earlier, Apple developed its own way
6 of doing dependency prediction. It did it in a way
7 that's different from the '752 patent and it did it in a
8 way that's different from the other work that was done
9 in the 1990's and Mr. Williams will tell you all about
10 that. He will tell you that rather than make
11 predictions based on a particular instruction, they used
12 a group of instructions to be more conservative and more
13 sophisticated. He will tell you that they used
14 something called *hashing* to accomplish this purpose.
15 You will search the '752 patent forever looking for a
16 reference to groups of instructions or hashing.

17 He will tell you that the Apple patent has
18 something called an *armed bit*. Again, no reference to
19 that in the patent. It's something that does the
20 dynamic prediction in a different way than Dr. Moshovos
21 and Dr. Sohi and his colleagues. It actually is more
22 complex, but allows for more sophisticated speculation
23 decisions. And he will tell you about something called
24 the *store-hit-younger load*. It's a signal. And what
25 the signal says is -- remember when I showed you the

1 part of the claim that requires you to detect a
2 mis-speculation? The Apple system actually says there
3 could be a mis-speculation on the way. It detects a
4 data dependence, and therefore, as a result, can be more
5 conservative, more precise, and more effective in this
6 device.

7 Now, you're going to learn more about all of this,
8 probably more than you ever wanted to know during the
9 course of the trial, but it will be important because
10 the question of whether what we did 17 years later with
11 no knowledge of their patent is the question. And at
12 the end, if I go back to my Sherlock Holmes, you will
13 see there are lots of folks working on different
14 solutions to the same problem, including Apple. But
15 perhaps most importantly, Mr. Williams is going to be
16 able to tell you why they made the choices they made,
17 not just that we're different, but why they made the
18 choices they made as they tried to take all of that
19 computing power and put it into this; why they had to
20 make choices that made clear that that chip could handle
21 all the different situations, situations that were never
22 contemplated in 1994 and 1996. The solution that has
23 been made by Apple is different in the different arena.

24 Now, there was a reference during the opening to
25 the fact that Apple tried different designs. Its

1 inventors even use colorful words like if we don't do
2 something, we're going to have a train wreck. That's
3 what people do when they're designing something like
4 this. And for the load-store predictor, the dependency
5 predictor, that little part or that specific part, to be
6 even more precise, there were four people who worked on
7 it. Of those 100 engineers, there were four people who
8 devoted their time to that.

9 And when you look at the documents that Dr. Conte
10 is going to show you or Dr. Mudge is going to show you,
11 ask yourself these two questions: First, what's the
12 whole series of documents. If I take this email and I
13 look at what happened next week, what does it show me?
14 And what we'll show you is that the Apple engineers were
15 working on their own solution. And the second thing it
16 will show is there's not a word, not a word about the
17 WARF patent. And why? Because Ladies and Gentlemen, on
18 the screen now is an undisputed chronology of what
19 happened in this case.

20 THE COURT: Mr. Lee, I take it you're --

21 MR. LEE: Close.

22 THE COURT: You were the one who was concerned
23 about fairness. I want to make sure I'm fair to both
24 sides.

25 MR. LEE: I'm very close, Your Honor.

1 So this is the chronology. Our load-store
2 dependency predictor was designed in 2011/2012. It was
3 on the market in a product in 2013. And then and only
4 then did Apple learn about the patent after the work was
5 done, after the product was designed.

6 So let me go to chapter 4 quickly. Why are we
7 here? We're here because WARF has said 17 years later
8 the work done by Apple independently infringes. You
9 will hear from Dr. David August -- if I could go to
10 Slide 57, and Dr. August is right back here -- a
11 professor at Princeton, and he is going to explain to
12 you the differences between what Apple does and what's
13 in the claims. And he's going to tell you that the end
14 result is the Apple product will actually allow
15 speculation when the WARF patent wouldn't, and prevent
16 speculation when the WARF patent would.

17 And in addition, Dr. Colwell is going to talk to
18 you about whether the patent actually is valid. If the
19 Patent Office had known everything that you're going to
20 know, and they knew about Hesson and Steely, but they
21 didn't consider the EV6, they didn't know about
22 Dr. Moshovos's thesis, they didn't know about
23 Dr. Moshovos's email, would they have taken that phrase,
24 it's a slight modification, and said no, you're not
25 entitled to a patent.

1 So let me come to a close and thank you, as I did
2 at the beginning, for your time and attention. Let me
3 just say one more thing. Mr. Chu showed a slide about
4 the importance of the patent system; its importance to
5 innovation, intervention. We agree. It's critically
6 important to the American system and economy. We don't
7 disagree for a second. But there's another part of the
8 patent system he didn't mention and that's you. And
9 when someone is accused of infringing a patent or when
10 someone believes a patent is invalid, what stands
11 between us and the accusation is you.

12 All we ask you to do is to listen to the evidence,
13 follow the details, as hard as it may be, let it take
14 you where your collective wisdom and common sense will
15 take you, and we believe and hope that that will be a
16 judgment for Apple.

17 Thank you, Your Honor.

18 THE COURT: Thank you very much, Mr. Lee. We
19 will now hear testimony from WARF. They will call their
20 first witness.

21 MR. CHU: Thank you very much, Your Honor. We
22 call Dr. Carl Gulbrandsen.

23 THE COURT: If you could clear the way for the
24 witness, I'd appreciate it. Thank you. I realize it's
25 close quarters in there. Mr. Gulbrandsen, if you would

1 come around and just stand before the court reporter.
2 On either side of the podium is fine. And if we could
3 be so good as to move the podium, that would be helpful
4 too. (3:08 p.m.)

5 **CARL GULBRANDSEN, PLAINTIFF'S WITNESS, SWORN,**

6 THE COURT: Whenever you're ready, Mr. Chu.

7 MR. CHU: Thank you very much.

8 DIRECT EXAMINATION

9 BY MR. CHU:

10 Q What do you do?

11 A I'm the managing director of Wisconsin Alumni
12 Research Foundation. Essentially that means that I'm
13 the CEO of the organization.

14 Q When did you join WARF?

15 A I joined WARF in October of 1997. When I first
16 joined, I was the Director of Patents and Licensing. In
17 January of 2000 I became managing director of WARF, and
18 I continue as managing director today.

19 Q Would you briefly describe your educational
20 background.

21 A I have a bachelor's degree from St. Olaf College.
22 After college, I went in the Army for two years, got
23 married, and my wife and I decided to move to Madison
24 where I pursued a degree in physiology. I obtained a
25 Ph.D. degree in physiology. During that period of time

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1 we came to love Madison. And my wife had a very good
2 job with the Madison Metropolitan School District. We
3 had two children, so I decided to also get a law degree.

4 And I went to law school at the University of
5 Wisconsin-Madison after I got my Ph.D., and I graduated
6 in 1981 with a law degree, and then subsequently became
7 a patent lawyer.

8 Q And very briefly, what did you do after you got
9 your law degree and your Ph.D. until you got to WARF?

10 A After I received my law degree, I joined the local
11 firm by the name of Ross & Stevens. It's today DeWitt,
12 Ross & Stevens. Ross & Stevens happened to be the
13 outside general counsel for the Wisconsin Alumni
14 Research Foundation. So I started out my career
15 representing WARF in various aspects.

16 I stayed at Ross & Stevens for about seven years.
17 And then I joined another firm, a patent law firm by the
18 name of Haight and Hofeldt, and I was there for about
19 three years. And then we merged our office here in
20 Madison with the firm of Strauss, Strauss, William,
21 Thompson and Howard. And I was there for about four or
22 five years when I then was invited to join a medical
23 device company in town by the name of Lunar Corporation
24 as just the inside general counsel. And I did that.

25 Lunar was selling bone densitometers, which were devices

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1 based on technology that came out of the University of
2 Wisconsin-Madison.

3 While at Lunar, we spun off a pharmaceutical
4 company that was also developing a technology out at the
5 University of Wisconsin-Madison in the vitamin D area.
6 And in October 1997, I took advantage of an opportunity
7 opening at WARF, left Lunar Corporation, and joined WARF
8 as its Director of Patents and Licensing.

9 Q I'd like to go to Exhibit PX 466 for which there is
10 no objections. And let's just put briefly the first
11 page on the screen and would you describe basically what
12 this is.

13 MR. MARCUS: Your Honor, objection. MIL 14.

14 THE COURT: We're on PX --

15 MR. CHU: 466 for which there --

16 THE COURT: We'll have a brief sidebar. Thank
17 you. I apologize for this delay. It won't take long.

18 (Discussion at sidebar at 3:12 p.m.)

19 THE COURT: Mr. Gulbrandsen is just giving
20 general information with WARF; is that right? Was he
21 named as a nonretained expert?

22 MR. CHU: He's going to give some general
23 information about WARF. He's going to discuss the fact
24 of the Intel license. He's going to discuss
25 communications --

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1 THE COURT: All right. I'm with you. Tell me
2 what it was that the MIL -- no, I just want to know what
3 the motion in limine --

4 MR. MARCUS: MIL 14 was WARF shouldn't talk
5 about where the money goes. And the Court's orders --
6 the general background information was fine, but this
7 goes into details about providing funds from --

8 MR. CHU: He's not going to talk about it.

9 THE COURT: Then don't call it up.

10 MR. CHU: I was not going to call that up.

11 THE COURT: I thought you just did.

12 MR. CHU: I called up the first page.

13 THE COURT: The first page. All right. Step
14 back.

15 MR. CHU: Can I raise another issue?

16 THE COURT: Do it very quickly. These are the
17 kinds of things that I hoped to -- what is it?

18 MR. CHU: It was in Apple's opening. He
19 mentioned that the reason Intel took a license, he did
20 this twice, was because Intel thought --

21 THE COURT: Yes, I remember that.

22 MR. CHU: Now, the fact is that claim was
23 dismissed by Barbara Crabb, Judge Barbara Crabb before
24 the settlement. So Apple's counsel was suggesting --

25 THE COURT: We'll address that at the break.
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1 MR. CHU: Okay.

2 (End of sidebar discussion 3:15 p.m.)

3 THE COURT: Please proceed. I apologize for
4 that delay. Now, we will continue with testimony.

5 BY MR. CHU:

6 Q Just very briefly what is this document?

7 A This is a slide deck that is used by myself and
8 others at WARF when we have visitors come to WARF and
9 who like to have us explain what WARF is and its
10 relationship to the University.

11 Q Now, I'd like to use just a couple of the slides.
12 Just go to Slide 2, and if you could just very briefly
13 describe the history of WARF. And can we put Slide 2 up
14 on the screen.

15 A Slide 2 contains pictures of WARF's founder,
16 Professor Harry Steenbock. Professor Steenbock was a
17 professor in agricultural biochemistry, and in the early
18 20's he discovered a process that would increase the
19 vitamin D content of food. At that time, vitamin D was
20 a problem that existed globally, and one of the
21 consequences of a vitamin D deficiency was rickets. It
22 particularly affected children. Rickets results in
23 spongy bone or soft bone. You see children with very
24 bowed legs, bones tend to fracture easily, causes a lot
25 of disabilities.

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1 Professor Steenbock had his invention to increase
2 vitamin D content and saw this as a way to hopefully
3 eradicate this problem of rickets.

4 Q And let's get to Slide 4 and would you briefly
5 describe why WARF was formed. What were the facts
6 causing it to be formed?

7 A So Professor Steenbock saw this opportunity to take
8 care of a very serious medical problem. Coincidentally,
9 the company Quaker Oats had learned about his invention
10 and came to Madison in 1924 and offered him \$900,000 for
11 his invention at that time. He didn't want to sell the
12 invention, he wanted to use the invention to help
13 address this problem of vitamin D deficiency and
14 rickets. So he turned to the University and offered to
15 give his invention to the University, suggesting to them
16 that they could take a patent application that he had
17 filed, get the patent issued, that it could then be
18 licensed to Quaker Oats and other companies and the
19 revenue could be brought back to the University to fund
20 his research and that of other investigators at the
21 University. He recognized that additional areas of
22 revenue was going to be important, that you couldn't
23 depend on state funding or other foundation funding for
24 the research to be done.

25 THE COURT: I'll sustain the objection. I
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1 don't know why we're going into this. I would like you
2 to stick to the questions as asked, and let's move this
3 along.

4 MR. CHU: I will.

5 THE COURT: This is deep background. It is not
6 relevant to the considerations of this jury. Next
7 question.

8 MR. CHU: Yes.

9 BY MR. CHU:

10 Q What is the process by which WARF decides whether
11 to file a patent application?

12 A On a monthly basis patents are -- patent
13 disclosures or inventions are disclosed to WARF, and
14 once a month WARF's professional staff, its intellectual
15 property managers and its licensing managers get
16 together and we go through the disclosures that have
17 been brought to WARF and decide, first of all, whether
18 this is a disclosure that we think we can protect,
19 whether we think it's important, and whether we think
20 that there's a market and we can add value to the
21 technology. Based on that, we make a decision to either
22 accept it or not to accept it.

23 Q Has the WARF '752 patent ever been licensed?

24 A Yes.

25 Q To whom?

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1 A The WARF '752 patent was licensed in 2009 to Intel
2 Corporation.

3 Q And did WARF take any steps to approach other
4 companies about a possible license to the WARF '752
5 patent?

6 A Yes. Prior to that we approached a number of
7 companies trying to get them to license the technology.

8 Q Approximately what time frame was that?

9 A Probably in the 2003 -- 2002/2003 time frame.

10 Q And were you involved in knowing about and
11 orchestrating those approaches?

12 A I was aware that they were approaching these other
13 companies. It was very difficult to get them to talk
14 with us.

15 Q Why was that?

16 A It's unusual for computer companies to license
17 technology from universities. They don't care to do
18 that.

19 Q And at the time in the early 2000 period, did WARF
20 have an understanding about whether any of the companies
21 being approached were actually at that time using the
22 technology?

23 A No, they --

24 MR. MARCUS: Objection, Your Honor. Hearsay.

25 THE COURT: It would have been appropriate
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1 before this. He's answered the question. You may ask
2 your next question.

3 MR. CHU: Yes.

4 THE WITNESS: Um --

5 BY MR. CHU:

6 Q Hold on, Dr. Gulbrandsen. Was there a period of
7 time when WARF approached Apple?

8 A Yes.

9 MR. CHU: And I'd like to go to DX 1725, which
10 is not objected to. And put it on the screen.

11 Q What is this?

12 A This is a copy of an email from a WARF employee,
13 Paul Pucci, who was a licensing associate at WARF at
14 that time. Mr. Pucci is sending an email to Apple
15 asking if they would provide him the name and contact of
16 an individual that he could speak with about some
17 technical materials.

18 Q And was there a response from Apple?

19 A Yes.

20 MR. CHU: Let's go to Exhibit PX 468 and put
21 that on the screen.

22 Q And would you describe this response, please.

23 THE COURT: I'm just going to ask you to have
24 him identify it. None of this is admitted into the
25 record. You're right that there are no pending

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1 objections, but you've going to have to identify it.
2 That gives me a chance to confirm that as well as
3 establish its relevance in the case. So I just blocked
4 it from the screen, but you can certainly describe what
5 that document is.

6 THE WITNESS: Okay. This document is an
7 automatic response from Apple to people who submit
8 requests to Apple to talk about technical submissions.

9 BY MR. CHU:

10 Q And what basically did it say?

11 MR. CHU: Can we put it up on the screen?

12 THE COURT: Do you want it admitted? It is
13 admitted.

14 MR. CHU: Yes, I will.

15 THE COURT: I'm publishing it to the jury. You
16 may proceed.

17 MR. CHU: Thank you.

18 THE WITNESS: It essentially says that Apple's
19 policy is to not accept or consider outside submissions,
20 and it refers the person submitting the -- wanting to
21 submit the information to a web page on the Apple site.

22 BY MR. CHU:

23 Q And are you familiar with the web page that existed
24 at that time?

25 A Yes.

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1 Q So I'm going to Exhibit DX 1723.

2 MR. CHU: I will want to have it admitted, Your
3 Honor. And before -- shall I pause before putting it on
4 the screen?

5 THE COURT: You can put it on the screen, it
6 just can't be published to the jury at this time. And
7 the witness can certainly identify what that document
8 is.

9 THE WITNESS: The document --

10 MR. MARCUS: Your Honor, objection.
11 Foundation.

12 THE COURT: All right. I'm also sustaining
13 that objection. What's your question for the witness?

14 BY MR. CHU:

15 Q What is Exhibit DX 1723?

16 THE COURT: Why don't we do it this way. Do
17 you know what this exhibit is?

18 THE WITNESS: Yes, I do.

19 THE COURT: And how do you know?

20 THE WITNESS: I've looked at this exhibit.
21 It's the exhibit that was referred -- is the web page
22 that was referred to in the prior exhibit.

23 THE COURT: And the objection is foundation?

24 MR. MARCUS: Withdraw. Your Honor.

25 THE COURT: You may now proceed.
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1 MR. CHU: May I now show it on the screen?

2 THE COURT: It is published.

3 BY MR. CHU:

4 Q Can you describe this Apple policy in the 2008 time
5 frame when WARF approached Apple?

6 A This is Apple's published policy on their website
7 which states that it does not accept unsolicited
8 submissions and it lays out, if you're going to submit
9 them, it lays out the term of submission which basically
10 is that your submission and contents will automatically
11 become the property of Apple without any compensation to
12 you.

13 Q Before the part that's been highlighted, just the
14 line or part of the line, what does that say?

15 A "Despite our request that you not send us your
16 ideas, you still submit -- if you still submit them,
17 then regardless of what your letter says the following
18 terms shall apply to the submission."

19 Q So at the time WARF was trying to approach Apple,
20 was WARF aware of this policy to the effect that if you
21 made a submission, it was Apple's view that the contents
22 of the submission would automatically become the
23 property of Apple without any compensation to you?

24 A That's one of the reasons why -- the answer is yes,
25 and it's one of the reasons why we were not more

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1 definitive about what we were wanting to talk to Apple
2 about.

3 Q Did Mr. Pucci take any other steps after being
4 referred to this Apple policy in 2008? And I'll call
5 your attention to PX 463.

6 MR. CHU: It's not objected to. We will want
7 to offer it in evidence. And please don't put it on the
8 screen yet.

9 THE COURT: It's actually something you
10 control.

11 MR. CHU: I see.

12 THE COURT: Now you may proceed.

13 BY MR. CHU:

14 Q What is this?

15 A This is a train of emails. The first one was kind
16 of a follow-on response from the automatic email that
17 was sent by Apple and this one actually came from a
18 human being, an Arnon Sethuraman, senior patent counsel
19 at Apple.

20 Q Before you go on --

21 MR. CHU: May I place this on the screen, Your
22 Honor?

23 THE COURT: Yes.

24 THE WITNESS: So Mr. Sethuraman states in his
25 email that he's responding to Paul Pucci's inquiry. But
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1 then he says "This is the only response anyone at Apple
2 is authorized to send you." And again, he refers to the
3 web page on Apple's policy with respect to unsolicited
4 submissions.

5 BY MR. CHU:

6 Q And did Mr. Pucci, despite receiving that
7 communication from a human being, a senior patent
8 counsel at Apple, try again to follow up?

9 A He did. He provided an email back to
10 Mr. Sethuraman and provided a little bit more
11 information. We were aware that Apple was acquiring a
12 semiconductor company, PA Semiconductor, and we had
13 reason to believe that they may be wanting to implement
14 the technology of the '756 [verbatim] patent. So he
15 identifies PA Semiconductor, indicates that he has
16 technical information that he'd like to talk to Apple
17 about in relation to PA Semiconductor.

18 Q Did Mr. Pucci or WARF receive any response from
19 Apple?

20 A Yes, they did.

21 Q I'm referring to Mr. Pucci's email, April 29, 2008.
22 This is after --

23 A Okay. Yes. No.

24 Q Let me just clarify. Was Mr. Pucci, on April 28,
25 2008, following up to Mr. Sethuraman's email?

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1 A That's right.

2 Q And did WARF or Mr. Pucci receive any response from
3 Apple?

4 A Not to my knowledge.

5 Q And in the emails that we just looked at, did
6 Mr. Pucci or WARF specifically call out the '752 patent?

7 A No.

8 Q Is there a reason for that?

9 A Well, the state of policy of Apple.

10 MR. MARCUS: Objection. Calls for hearsay.
11 And no foundation also.

12 THE COURT: I'll overrule those objections.
13 You can answer the question.

14 THE WITNESS: The stated policy of Apple on
15 their website as was referred to us is that if we
16 provided that information, they would be the owner of
17 that patent.

18 BY MR. CHU:

19 Q Now, between 2008 and when this --

20 THE COURT: Mr. Gulbrandsen, I just want to
21 make sure I understand. So your concern was even though
22 you had a fully issued patent, if you called that patent
23 to Apple's attention, you would be bound to have waived
24 all your rights of the patent just by calling it to
25 Apple's attention? That was WARF's understanding at the
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1 time?

2 THE WITNESS: Well, the web page says that they
3 would take ownership.

4 THE COURT: I understand. But it was your
5 understanding that that's how it would work?

6 THE WITNESS: We didn't want to get into an
7 argument about it.

8 THE COURT: All right. You may ask your next
9 question.

10 MR. CHU: Thank you.

11 BY MR. CHU:

12 Q Did WARF contact Apple since these communications
13 before this lawsuit was filed in early 2014?

14 A No, we didn't.

15 Q And what led to the filing of this lawsuit in
16 January 2014?

17 A When the Apple smartphones, the iPhones were
18 subsequently introduced, we watched that technology and
19 the early phones that we tested were not using the '756
20 [verbatim] technology. But when the iPhone 5s was
21 released, our tests on that phone indicated they were
22 using it.

23 MR. CHU: No further questions, Your Honor,
24 subject to the if we raised sidebar.

25 THE COURT: All right. We're going to take our
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1 break at this time, one afternoon break. We will
2 reconvene at 10 to 4 and continue with cross-examination
3 for this witness.

4 All rise, please.

5 (Jury excused from courtroom at 3:28 p.m.)

6 THE COURT: If the parties would be seated, I
7 would appreciate it. Mr. Gulbrandsen, you're welcome to
8 step down. If you could be just so good as to be back
9 in that seat at ten to 4. And keep in mind that during
10 this break, you're technically sequestered, which means
11 you shouldn't talk to anyone on either side about your
12 testimony. Thank you.

13 With that said, let me take up a couple issues with
14 respect to the most recent witness. Just pure
15 housekeeping, none of the exhibits are in evidence.
16 That means they can't be published to the jury until
17 they've been admitted.

18 Mr. Gulbrandsen, feel free to walk by. It won't
19 interfere. I don't mind.

20 THE WITNESS: May I go to the restroom?

21 THE COURT: Absolutely. Except for the parties
22 sitting in front of me at these tables, anyone is free
23 to leave at this moment. My concern is that you
24 understand that you need to become familiar with that
25 single button jury/no jury. So once it's admitted, it's

1 fine to publish it. If it's not admitted yet, it's not.

2 Which brings me to the second concern that was
3 raised at sidebar. Your concern is that there was an
4 explanation given for the timing of the decision to
5 license. And what was that?

6 MR. CHU: Twice during Apple's opening
7 statement --

8 THE COURT: What was the specific statement
9 you're concerned about that was made twice?

10 MR. CHU: That Intel had funded some work at
11 U.W.; that they believed that they had some rights to
12 the patent.

13 THE COURT: All right. And that opens what
14 door in your mind?

15 MR. CHU: To explain the following facts:
16 That, in fact, that claim was made as a counterclaim in
17 the suit that was before Judge Crabb.

18 THE COURT: When you say that claim was made --

19 MR. CHU: That was a counterclaim made where
20 the Regents, individuals, and others were sued based on
21 the claim by Intel that it had rights to the '752 patent
22 because it provided some modest amount of funding.

23 THE COURT: I don't know how that's relevant at
24 all. The only statement that was made was that funding
25 was provided.

1 MR. CHU: No. The statement -- let me describe
2 the facts and I think you'll understand.

3 THE COURT: I understand the basic facts. I
4 understand the counterclaim. You're saying that a door
5 was opened by virtue of the fact that a statement was
6 made that monies were paid by Intel to Dr. Sohi to do
7 certain research. What door has been opened as a result
8 of making that statement?

9 MR. CHU: We would like to show the following
10 facts: This is the door that's been opened. That that
11 claim had been dismissed --

12 THE COURT: That's not a claim. It's a fact, a
13 statement of fact that monies were provided. It has
14 nothing to do with whether or not there was a patent
15 right created or that there was a claim, a counterclaim
16 by Intel. The only statement that was made in this
17 record is that monies were provided by Intel. That's
18 not something that's out of the case because Intel lost
19 a counterclaim on that issue. It didn't open any door
20 is what I'm saying, unless you have something else that
21 I'm missing.

22 MR. SHEASBY: Your Honor, I actually heard the
23 statement slightly differently. In other words, I heard
24 the suggestion by Mr. Lee that there was a lawsuit filed
25 even though there was a promise of rights to the

1 invention. In fact, I think if you look at the
2 transcript --

3 THE COURT: I think I agree to the extent that
4 it was implied that by paying that money, they had some
5 special relationship and really the implication was that
6 they were using the technology. That's the way it was
7 stated. It wasn't that they had a right in the
8 technology; on the contrary, they ended up buying a
9 royalty. They didn't have a right to it. So I just
10 disagree with you that that opened any door beyond what
11 is already in this case. So I just disagree that we
12 need to go further down that road. If you want to
13 provide me with some kind of proffer you think opens a
14 larger door, you're welcome to do so. But I disagree
15 with you at this point.

16 MR. CHU: Can I raise just a different subject?

17 THE COURT: Yes, sir. Very quickly.

18 MR. CHU: What is the Court's preferences with
19 respect to the formal admission of exhibits, whether to
20 -- outside the hearing of the jury? Just have a list?
21 Move them in evidence? What do you want --

22 THE COURT: If the parties can agree, I'm happy
23 to just deem them admitted, in which case we don't have
24 to go through the formal process. Mr. Gulbrandsen, you
25 don't need to get back on the stand yet. We're going to

1 actually take a break here. If the parties are in
2 agreement, then they're admitted and you need simply
3 advise me. If the parties are not in agreement and you
4 think there's no basis to leave it out, I'd consider it,
5 but that should have been something that was worked out
6 between the parties.

7 As I told you from the beginning, an exhibit is in
8 when I admit it as such. Does that answer your
9 question?

10 MR. CHU: Yes, Judge.

11 THE COURT: There was this last area, you did
12 not move its admission, but the first very slide that
13 was shown to Mr. Gulbrandsen which you then used a
14 couple of the slides. You should advise me as to what
15 is in evidence, because at least one of the slides that
16 makes up that exhibit is not in evidence and is not
17 going into evidence, so if you would work that out with
18 each other at the break, I would appreciate it.

19 MR. CHU: We will do that.

20 THE COURT: All right. Very good. Was there
21 something more for Apple with respect to the exhibits so
22 far?

23 MR. MARCUS: No, Your Honor. Thank you.

24 THE COURT: All right. My concern was not with
25 respect to foundation or I believe you said hearsay. My

1 concern was relevance, and since that wasn't objected
2 to, I sustained -- I overruled the objections.

3 With that said, we are going to take our break with
4 two exceptions. I would ask that counsel confer and see
5 if they can't reach agreement on the final issues with
6 respect to Mr. Conti's demonstratives. If not, I don't
7 care who, but someone should be back at quarter to to
8 advise me where that dispute is.

9 And then secondarily, the exhibits that remain in
10 dispute with respect to Apple, I did issue a ruling with
11 respect to Webb and I'd like someone to advise me as to
12 where those stand at quarter to.

13 We are in brief recess and we will reconvene at
14 quarter to. Thank you. You're free to move about as
15 you wish.

16 (Recess 3:35-3:45 p.m.)

17 THE COURT: We're back on the record. I would
18 simply ask that counsel, with respect to Mr. Conte, be
19 prepared to advise me where things stand.

20 Mr. Gulbrandsen, you can take your seat in the next
21 five minutes any time you wish. So if you want to come
22 forward you can, but don't feel any obligation. As long
23 as you're there by ten to. Thank you.

24 MR. SHEASBY: So unfortunately we didn't make
25 any more progress; in other words, we talked and I think

1 counsel felt, and it's his right, that that's as far as
2 we're going to go.

3 THE COURT: That's fine. Why don't you call up
4 what remains in dispute.

5 MR. SHEASBY: Sure. So I think --

6 MR. DOWD: Actually, Your Honor, I'm not sure
7 that that's exactly right.

8 THE COURT: All right. Let's do it this way:
9 Let me hear then from Apple.

10 MR. DOWD: If I could. So Your Honor, I think
11 we actually have made some progress. Right before the
12 break --

13 THE COURT: Let's just tell me what you think
14 is in dispute or is resolved.

15 MR. DOWD: Fair enough.

16 THE COURT: We'll decide whether any progress
17 was made based on that.

18 MR. DOWD: Well, the first slide is Slide 115,
19 and this is in the new book that WARF handed out this
20 morning.

21 MR. SHEASBY: Your Honor, we have the --

22 MR. DOWD: So Your Honor, the first one is
23 Slide 115 and this is a group -- three of these.

24 THE COURT: Yeah.

25 MR. DOWD: This is a slide that argues that

1 Apple is trying to add words to the claim. It's
2 attorney argument and it is not an opinion that appears
3 in Dr. Conte's report. I was pointed by counsel to
4 paragraph 126 of the report as the support for this.

5 THE COURT: Well, let's leave it at this. For
6 WARF, your reason for thinking that it's appropriate for
7 you to be highlighting specific phrases?

8 MR. SHEASBY: Yes. It actually was in his
9 report, Your Honor. In other words, in Professor
10 Conte's report he analyzed Apple's argument and actually
11 explained that these additional --

12 THE COURT: The highlighting in his -- so he
13 had blue highlighting, yellow highlighting, he
14 emphasized language in red, and he put underneath "Apple
15 wants to add words in the claim." Those are all part of
16 his report?

17 MR. SHEASBY: Yes. And if I can give you an
18 example, I can actually make this connection. If you go
19 to Slide 170, which is the same version, and let's go to
20 Conte paragraph 1044. And Your Honor -- Your Honor, I
21 don't want to talk over you. Let me know when you get
22 there.

23 THE COURT: You're not talking over me. I'm
24 looking at the slide. Actually you don't include 170.
25 You have 169 and 172. So I don't know what you're

1 asking me to look at.

2 MR. SHEASBY: Sure. So what Conte says is
3 "Claim 1 recites a prediction with a predetermined range
4 as a requirement condition for preventing data
5 speculation." But Claim 1 does not exclude the use of
6 other conditions that must also be satisfied.

7 THE COURT: All right. It's out. 115 is out.
8 And that makes it simpler.

9 MR. SHEASBY: That clause is fine. We
10 understand that.

11 THE COURT: Are there any others?

12 MR. DOWD: In the same category is 127. Well,
13 actually 131 is an example of the same issue, which is
14 on the screen now. And 127 is another example of the
15 same issue.

16 THE COURT: You can call out the language. If
17 you want to highlight it as the expert talks about it,
18 as long as it's not highlighted by -- in advance of the
19 expert talking about it, that's fine. But this is just
20 too busy and too argumentative for a demonstrative of
21 someone's testimony.

22 MR. SHEASBY: Your Honor, we understand your
23 ruling. Thank you very much.

24 THE COURT: Very good. Are there any others we
25 need to address?

1 MR. DOWD: There were two other categories or
2 additions.

3 THE COURT: I just want to hear if there's
4 anything more before we bring the jury out.

5 MR. DOWD: Very briefly, Your Honor. If we
6 looked at Slides 59 and 60 of the deck, there's one
7 issue and that is the presentation suggests that
8 Mr. Bannon is the first chief architect of the accused
9 chip, and Mr. Williams, who is here to represent Apple
10 today, is the second chief architect, which suggests
11 that somehow instead of bringing the head of the group,
12 we brought the second --

13 THE COURT: What's the basis for the
14 designation of those two?

15 MR. SHEASBY: Yes, Your Honor. It's in their
16 depositions. Mr. Bannon was the first chief architect
17 of the A7. He then -- when he became the head of
18 simulation, and after that, Gerald Williams became the
19 second chief architect. It's a --

20 THE COURT: I'm not going to require they
21 change it. You can certainly address that with
22 Mr. Williams. You can do it in cross-examination if you
23 want to. But if that's how they described themselves in
24 their deposition, I'm not going to require a change.

25 Was there something more?

1 MR. DOWD: The actual description was current
2 and former and we'd be fine with that.

3 THE COURT: If you want to change it to current
4 and former, that seems like a reasonable change. I
5 apologize for doing that at the last minute. But if
6 that was the testimony, then I would accept that.

7 MR. SHEASBY: Your Honor, to be clear, that
8 wasn't the testimony. The current and former doesn't
9 make any sense because the chip had already been
10 designed. So there is no current chief architect of the
11 A7. It was designed many, many years ago.

12 THE COURT: All right. We're going to leave it
13 the way it is and you'll have to expand on it. Was
14 there something more?

15 MR. DOWD: Yes, there's one final one, which is
16 71. I have it on the screen, Your Honor.

17 THE COURT: I'm looking at it as well. Go
18 ahead.

19 MR. DOWD: This issue is there are two problems
20 with this: One is that it's argumentative and
21 misstating the document, and then the second is that
22 it's contrary to the Court's construction of the term
23 data speculation circuit. The issue is, as you'll see,
24 WARF is highlighting in the email this acronym LSD,
25 which is a load-store dependency predictor.

1 THE COURT: All right. What I will allow is
2 that the actual exhibit may be pulled up. The
3 underlining or I should say the highlighting may be
4 inserted as it's pointed out by the witness, and we'll
5 take out that LSD, load-store dependency definition
6 that's above it.

7 Is that -- I'm sorry, is that ruling clear for
8 WARF's purposes?

9 MR. SHEASBY: Your Honor, clear. That's not a
10 problem at all. We'll make it work.

11 THE COURT: Good. Could I then ask if there's
12 something more?

13 MR. DOWD: The final issue is with respect to
14 the construction. Your Honor has construed a data
15 speculation circuit as having to detect a
16 mis-speculation and detect dependency. This slide
17 collapses it and suggests that --

18 THE COURT: Well, there's two responses to
19 that. One is you can object to the testimony. It's not
20 going to be in this slide as it's revised. If he
21 testifies to it, you can object as it's inconsistent
22 with the report. In any event, even if I allow him to
23 testify as to his understanding, ultimately you can hold
24 him to the definition if the Court has issued a specific
25 construction.

1 Anything more then?

2 MR. DOWD: That resolves it.

3 THE COURT: All right. All rise, please.

4 We're going to hear from our witness.

5 (Jury brought in courtroom at 3:55 p.m.)

6 THE COURT: As soon as you're seated, we will
7 begin. Please be seated. We will continue now with the
8 cross-examination of Mr. Gulbrandsen.

9 You may proceed, Counsel.

10 MR. MARCUS: May I proceed, Your Honor?

11 THE COURT: Please.

12 CROSS-EXAMINATION

13 BY MR. MARCUS:

14 Q Good afternoon, Dr. Gulbrandsen.

15 A Good afternoon.

16 Q David Marcus for Apple.

17 A Yes.

18 Q During your direct testimony you made reference to
19 Exhibit 1725. Is there any objection to calling that
20 up?

21 THE COURT: I think it is before the witness
22 now as well as the jury.

23 MR. MARCUS: Your Honor, may I publish it to
24 the jury?

25 THE COURT: I thought you said there was
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1 reference to. Was it not admitted at that time? 725
2 [verbatim] was not admitted, but I will admit it without
3 objection. And you may publish it.

4 MR. MARCUS: Thank you, Your Honor.

5 BY MR. MARCUS:

6 Q Dr. Gulbrandsen, Exhibit 1725 contains the first
7 email that WARF sent to Apple; correct?

8 A It's my understanding, yes.

9 Q Now, before sending this email, WARF hadn't
10 received the automatic response email from Apple about
11 idea submissions; correct?

12 A Correct.

13 Q Now, in this email, the first email that WARF sent
14 to Apple, there is no reference to the '752 patent;
15 correct?

16 A Correct.

17 Q In fact, the '752 patent wasn't identified in any
18 way in this email; correct?

19 THE COURT: With apologies, we're going to have
20 a sidebar with counsel.

21 (Discussion at sidebar at 3:54 p.m.)

22 THE COURT: I know that WARF opened this weird
23 door, but I don't understand why this has any relevance
24 to infringement. I barely didn't allow it to be
25 mentioned in opening. What difference does it make for
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1 purposes of infringement as to when your client learned
2 of the existence of the patent?

3 MR. MARCUS: I don't think it is relevant. We
4 just want to make the record more clear.

5 THE COURT: I'm going to make clear that it's
6 not relevant for either side and we're going to move on.

7 MR. MARCUS: Thank you.

8 (End of sidebar discussion at 3:55 p.m.)

9 THE COURT: We've kind of gone down a road
10 which you will be instructed has no relevance for the
11 infringement determination you'll be asked to make at
12 the end of this phase of trial. It doesn't matter
13 whether Apple knew about the existence of the '752
14 patent. Their knowledge isn't relevant to deciding
15 whether or not their product infringes, any more than
16 it's relevant as to when WARF advised them of the
17 existence of the '752 patent. You'll have this in
18 writing as part of my instructions. Why we went down
19 this road I'm not sure, but I'm closing it now. So you
20 shouldn't hold it against either side. It's just not a
21 relevant consideration at this time.

22 You may proceed, Counsel.

23 MR. MARCUS: Thank you, Your Honor.

24 BY MR. MARCUS:

25 Q Dr. Gulbrandsen, you're the managing director of
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1 WARF; correct?

2 A That's right.

3 Q You're an attorney; correct?

4 A I am.

5 Q You're not offering any opinion as to whether Apple
6 infringes the '752 patent; correct?

7 A Correct.

8 Q You've not been asked to make a determination as to
9 whether the '752 patent is valid in light of the prior
10 art; correct?

11 A Not on my own, that's correct.

12 Q And you're also not offering an opinion as to
13 whether the '752 patent is valid or invalid; correct?

14 A I'm not offering that opinion.

15 Q During your direct testimony, you made reference to
16 some testing that WARF did of Apple products other than
17 the accused products; correct?

18 A I did.

19 Q Were those tests produced to Apple in this
20 litigation?

21 A I don't know.

22 Q The '752 patent that is the subject of this case
23 was issued in July 1998; correct?

24 A Correct.

25 Q And in November 2000, WARF sent out some letters to
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1 try to license the '752 patent; right?

2 A If you say so. I don't have the dates in front of
3 me.

4 Q Well, you'll agree with me that November 2000 is
5 more than two years after the patent issued; right?

6 A Sure.

7 Q Let's take a look at that -- those letters. Could
8 you turn to DX 1669, which is tab 4 in your binder. Do
9 you have that in front of you, sir?

10 A Yes, I do.

11 Q And this is a letter from Jerry Shattuck of WARF to
12 AMD; right?

13 A Yes.

14 Q You recognize the document; right?

15 A I do.

16 Q It comes from WARF's files; right?

17 A That's correct.

18 MR. MARCUS: Your Honor, may I publish it to
19 the jury?

20 THE COURT: It is admitted.

21 BY MR. MARCUS:

22 Q Dr. Gulbrandsen, Jerry Shattuck was a licensing
23 manager at WARF at the time he wrote this letter;
24 correct?

25 A Yes.

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1 Q And the letter was sent on November 7th, 2000;
2 correct?

3 A That's correct.

4 Q The purpose of the letter was WARF trying --
5 contacting AMD to try to license the '752 patent;
6 correct?

7 A Correct.

8 Q And Mr. Shattuck included the patent number of the
9 '752 patent in this letter; right?

10 A He did.

11 Q Mr. Shattuck also included the title of the '752
12 patent in this letter; correct?

13 A Correct.

14 Q Now, AMD never took a license to the '752 patent;
15 correct?

16 A That's correct.

17 Q Could you turn now to DX 1674, which is tab 5 in
18 your binder. Do you have that in front of you, sir?

19 A I do.

20 Q This is another letter from Mr. Shattuck on behalf
21 of WARF, this time to Compaq; correct?

22 A Correct.

23 Q This letter is also trying to license the '752
24 patent; right?

25 A Correct.

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1 Q And you recognize this letter; right?

2 A Yes.

3 MR. MARCUS: Your Honor, we move this letter
4 into evidence.

5 THE COURT: That's fine. It is admitted and
6 you may publish.

7 MR. MARCUS: Thank you, Your Honor.

8 BY MR. MARCUS:

9 Q This letter was also sent on November 7, 2000;
10 right?

11 A Right.

12 Q And Compaq never took a license to the '752 patent;
13 right?

14 A That's correct.

15 Q Could you now turn to DX 1671, which is tab 6 in
16 your binder. Sir, do you have that in front of you?

17 A I do.

18 Q This is a letter from Mr. Shattuck on behalf of
19 WARF to Hewlett Packard; right?

20 A Correct.

21 Q You recognize the document; correct?

22 A Yes.

23 MR. MARCUS: Your Honor, may I publish it to
24 the jury?

25 THE COURT: You may. It is admitted.
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1 BY MR. MARCUS:

2 Q This is another letter where WARF is trying to
3 license the '752 patent to a computer company; right?

4 A That's correct.

5 Q And this letter was also sent on November 7, 2000;
6 right?

7 A Correct.

8 Q And Hewlett Packard, HP, never took a license to
9 the '752 patent; right?

10 A That's correct.

11 Q So we've now seen three letters sent in November of
12 2000 where WARF tried to license the '752 patent;
13 correct?

14 A Correct.

15 Q And then a few months later, in January 2001, WARF
16 sent two more letters trying to interest companies in
17 licensing the '752 patent; correct?

18 A Correct.

19 Q Let's take a look at those and I'd ask you to turn
20 to DX 1672 which is tab 7 in your binder. Are you at
21 tab 7, sir?

22 A Yes.

23 Q This is another letter from Mr. Shattuck written on
24 behalf of WARF; correct?

25 A Correct.

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1 Q You recognize the document; right?

2 A Yes.

3 MR. MARCUS: May I publish the document, Your
4 Honor?

5 THE COURT: It is admitted. You may publish
6 it. But we're not going to highlight it. You can just
7 get your minimums. And again, highlighting is to be
8 done at the direction of counsel.

9 You may proceed.

10 MR. MARCUS: Thank you, Your Honor.

11 BY MR. MARCUS:

12 Q This letter from Mr. Shattuck is to IBM; correct?

13 A That's correct.

14 Q And this letter was sent on January 2nd, 2001;
15 right?

16 A Yes.

17 Q The purpose of this letter was to see if IBM wanted
18 to take a license to the '752 patent; right?

19 A Yes.

20 Q And once again, Mr. Shattuck, on behalf of WARF,
21 included the patent number and the title of the '752
22 patent in this letter; right?

23 A That's correct.

24 Q And IBM never took a license to the '752 patent;
25 correct?

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1 A That's correct.

2 Q Could you now turn to DX 1688, which is tab 8 in
3 your binder.

4 THE COURT: And just to move things along, this
5 too is admitted without objection and it may be
6 published to the jury.

7 And you should proceed, Counsel.

8 MR. MARCUS: Thank you, Your Honor.

9 BY MR. MARCUS:

10 Q This is another letter from Mr. Shattuck on behalf
11 of WARF, this time to Sun Microsystems; correct?

12 A Yes.

13 Q Sun Microsystems never took a license to the '752
14 patent; right?

15 A That's correct.

16 Q And again, in this letter both the number and the
17 name of the '752 patent were identified to Sun
18 Microsystems; right?

19 A Right.

20 Q So in total now we've looked at five technology
21 companies --

22 THE COURT: Again, the jury can add. Another
23 question.

24 MR. MARCUS: Thank you, Your Honor.

25 BY MR. MARCUS:

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1 Q In fact, the only company in the world that's
2 licensed the '752 patent is Intel; correct?

3 A That's correct.

4 Q And Intel only took a license after WARF sued them;
5 correct?

6 A That's correct.

7 Q WARF has never licensed the '752 patent to a
8 company that sells smartphones; correct?

9 A Correct.

10 Q And no smartphone company has approached WARF to
11 discuss taking a license to the '752 patent; correct?

12 A Correct.

13 Q WARF has never licensed the '752 patent to a
14 company that sells tablets; correct?

15 A Correct.

16 Q And no tablet company has approached WARF to take a
17 license to the '752 patent; correct?

18 A Correct.

19 Q You have no evidence that any of Apple's
20 competitors are using the '752 patent; correct?

21 A I have no evidence of that.

22 Q And sir, you're not aware of any communications --
23 I'll strike that.

24 MR. MARCUS: Your Honor, I'll pass the witness.

25 Thank you. (4:05 p.m.)

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1 THE COURT: Very good. Any redirect?

2 MR. CHU: Yes, Your Honor.

3 REDIRECT EXAMINATION

4 BY MR. CHU:

5 Q As of the date of the letter to Compaq Computer in
6 the year 2000, do you have an understanding of who was
7 the major supplier of processors to Compaq?

8 A Intel.

9 Q Same question with respect to HP as of the date of
10 the letter to HP.

11 A Intel.

12 Q Did you have an understanding as of that year
13 whether Intel was or was not using the technology
14 claimed by the '752 patent?

15 A As of that year?

16 Q Yes.

17 MR. MARCUS: Objection, Your Honor.
18 Foundation.

19 THE COURT: He's really -- he's asking about
20 this witness's understanding and you've explored his
21 motivation, so I'm going to let him answer the question.
22 Did you have an understanding at that time?

23 THE WITNESS: At that time our understanding
24 was it was not being used.

25
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1 BY MR. CHU:

2 Q Did you have an understanding with respect to AMD,
3 IBM and Sun Microsystems as of the dates of those
4 letters as to whether they were or were not using the
5 WARF technology?

6 A My understanding is it was not being used at that
7 time.

8 MR. CHU: Thank you.

9 THE COURT: All right. You may step down then,
10 Mr. Gulbrandsen. Thank you. And WARF may call its next
11 witness.

12 (Witness excused.)

13 MR. FRISCHLING: WARF calls Professor Gurindar
14 Sohi.

15 **GURINDAR SOHI, PLAINTIFF'S WITNESS, SWORN,**

16 THE COURT: And you may proceed.

17 DIRECT EXAMINATION

18 BY MR. FRISCHLING:

19 Q Good afternoon. Please introduce yourself to the
20 Court and the jury.

21 A Okay. My name is Gurindar Sohi. I go by the name
22 of Guri Sohi.

23 Q How are you currently employed?

24 A I'm a professor at the University of
25 Wisconsin-Madison in the Computer Sciences Department
GURINDAR SOHI - DIRECT

1 and also in the Electrical and Computer Engineering
2 Department.

3 Q Do you have any other appointments at the
4 University?

5 A I am a Vilas Research Professor, a John P.
6 Morgridge Professor, an E. David Cronon Professor of
7 Computer Science, and I was also the chair of the
8 Computer Science Department from 2004 through 2008.

9 Q How long have you been on the faculty?

10 A I joined the faculty in 1985 when I was 25, so this
11 is my 30th anniversary.

12 Q Can you describe for us briefly, Professor, your --
13 how you came to be involved in computer architecture?

14 A So I was growing up in India and my parents were
15 both doctors, they wanted me to be a doctor, and I
16 wanted to study engineering. And when I went to
17 engineering college, I took a class on digital logic,
18 which is the building blocks of computers. And so I got
19 very excited and I wanted to study further and the only
20 option was to come to the United States, despite my
21 parents' objections and hesitations I wouldn't be
22 accepted here.

23 I came to grad school at the University of Illinois
24 and that's where I learned about computer architecture.

25 Q Have you ever testified in court before, Professor?
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1 A I have not been on the witness stand, but I was
2 sworn in in this very courthouse as a United States
3 citizen in 1993.

4 Q Professor Sohi, if you would look in a green folder
5 on the witness stand you have there. It's a copy of
6 Plaintiff's Exhibit 1, '752 patent. Would you take a
7 look at it and tell me if you recognize it. And if we
8 could please have on the court system, without
9 publishing it, the visual for everybody else.

10 A Yes, I do.

11 Q And can you tell us, sir, please, what it is you're
12 looking at.

13 A This is the original of the United States patent
14 '752 that was issued by the United States Patent Office.

15 MR. FRISCHLING: We move admission of
16 Plaintiff's Exhibit 1, Your Honor.

17 THE COURT: It is admitted.

18 BY MR. FRISCHLING:

19 Q Thank you, Professor Sohi. Who are the inventors
20 on the '752 patent?

21 A The inventors are Andreas Moshovos, Scott Breach,
22 and Terani Vijaykumar. He goes simply by Vijay.

23 Q Professor Sohi, I'd like you to tell us just a
24 little bit of the background about each of the
25 inventors.

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1 MR. FRISCHLING: We have a slide with their
2 photographs, Your Honor, that was not objected to, if we
3 can display that to the jury just as a demonstrative.

4 THE COURT: You may.

5 MR. FRISCHLING: Thank you.

6 THE WITNESS: On the right is Andreas Moshovos.
7 He grew up in Greece and came for graduate studies to
8 work with me at Wisconsin. He is now a tenured
9 professor at the University of Toronto.

10 In the middle is Dr. Scott Breach. He grew up on
11 the East Coast and he came to study with me at
12 Wisconsin, and he's now a senior engineer at AMD
13 Corporation, which is a manufacturer of microprocessors.

14 And on the left is Vijaykumar, who like me grew up
15 in India and came to Wisconsin, and he is now a tenured
16 professor at Pursue University.

17 BY MR. FRISCHLING:

18 Q Thank you, Professor. Can you describe for us
19 briefly the origin of the work that's described in the
20 '752 patent.

21 A So what my research was addressed for, you know,
22 from the late to mid-80's onward was how to describe
23 these instructional level processors. But being an
24 academic who's really charged with looking further out
25 than what others would ordinarily do, I was trying to

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1 look out 10 to 15 years in the future, identify the
2 challenges, and then go and determine how we might go
3 about solving them.

4 Q What challenges did you identify, Professor, that
5 relate to the '752 patent in the course of your work?

6 A So the key challenge was that you're going to have
7 to be executing instructions in parallel. And you heard
8 a little bit about parallel and out of order. So we
9 were going to execute them out of the order. Sometimes
10 it's easy to know two instructions can be issued out of
11 order. So if you're doing 3 plus 2 and 4 plus 1, you
12 can do them in any order and get the same result. But
13 if you're doing 3 times two plus 6, then if you do the 3
14 times 2 before the plus 6, you get a different result
15 than the 2 plus 6 then times 3. Okay? So in that case,
16 it's not -- you can't issue them out of order. They're
17 data dependent and you can't issue them out of order and
18 get the correct result.

19 But a lot -- there is a large class of instructions
20 that are called *load-and-store instructions*, which you
21 do not know whether they are dependent or not. And so
22 you want -- if you want to be able to issue them out of
23 order, you have to have very good knowledge about
24 whether you can issue them out of order or not.

25 Q So Professor, I'd like to just go back to basics.
GURINDAR SOHI - DIRECT

1 Can you tell us what a load instruction is, please.

2 A Okay. So inside a computer, the heart is a
3 processor, sometimes also called a central processing
4 unit, and, you know, these days it's a microprocessor.
5 And there is memory, which is a collection of locations
6 where you store data and information. And each location
7 is given an address. Okay? It's just like everyone, if
8 you have a mailbox, that has an address on it. Okay?

9 So a load instruction brings data from a location
10 and address, from a location and memory into the
11 processor, and a store instruction does the work. It
12 takes data from a processor after the data has been
13 operated upon and puts it back in memory.

14 Q Professor, just so we have a rancored, what is a
15 program? How do instructions relate to a program?

16 A Oh. So a program is -- so every software
17 application, be it Word or be it a web browser is a
18 program, if you will. It's a collection of instructions
19 through the computer, through the processor. The
20 processor executes the instructions and the instructions
21 have an implied order. And so -- sorry, did I answer
22 your question completely?

23 Q Yes, you did.

24 A Okay. Thank you.

25 Q Thank you. Turning to the question that you were
GURINDAR SOHI - DIRECT

1 talking about a moment ago, the analysis and the work
2 you had done to identify challenges with loads and
3 stores, is there a term that describes what you were
4 trying -- the challenge you were trying to deal with
5 with regard to load-and-store instructions?

6 A So we were trying to identify how to execute these
7 load-and-store instructions out of order. So as I
8 talked to you about earlier, two instructions are
9 dependent on each other, you cannot do them out of
10 order. But if they're not, you can do them out of
11 order. So what we're trying to establish is the
12 dependence relationships between these load-and-store
13 instructions. But, of course, you can't know them
14 completely and so you have to predict whether there's a
15 dependence. And so what we were trying to come up with,
16 how can we have clever ways to deal with that challenge.

17 Q So Professor, you described load-and-store
18 instructions that should not be done out of order. What
19 happens inside the processor if they do go out of order?

20 A Oh. So if I do a load instruction before a store
21 instruction, I am speculating that it's not dependent on
22 the store instruction. And so if it goes out of order
23 and it happens -- if there isn't any dependence, then
24 all is good. But if there is a dependence, then I have
25 a mis-speculation or a collision, I have to then go

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1 ahead and recover and restart, throw things out, squash
2 them, flush them as what's called, and restart the
3 program from the offending instruction.

4 Q So Professor, the problem of -- first of all, is
5 there a term for what you've just described when a load
6 conflicts with a store?

7 A It's a memory dependence violation.

8 Q And you also used the term mis-speculation. Is
9 there a difference?

10 A So the mis-speculation is essentially that there
11 was a violation and you had to do something about it
12 again. So it's essentially the same.

13 Q Was it --

14 THE COURT: It's possible to have a violation
15 without it having resulted in a mis-speculation because
16 by happenstance it was right? Do you draw any
17 distinction between those two events or are they just
18 used interchangeably?

19 THE WITNESS: Well, different people use
20 different terminology.

21 THE COURT: But for you, it's your
22 understanding they are basically the same thing.

23 THE WITNESS: Well, if you have to do some
24 corrective action.

25 THE COURT: That's clearly a mis-speculation.
GURINDAR SOHI - DIRECT

1 But that would also be a miscalculation in your usage.

2 THE WITNESS: I'm sorry, Judge.

3 THE COURT: We're talking about the difference
4 between a mis-speculation and a violation. If -- does
5 it -- for you they're interchangeable terms.

6 THE WITNESS: That's correct.

7 THE COURT: That's all I was trying to
8 establish. I apologize. You may proceed.

9 THE WITNESS: No problem, Your Honor.

10 BY MR. FRISCHLING:

11 Q Professor, were you or your group the first to
12 recognize that loads and stores can mis-speculate?

13 A No, we were not.

14 Q That was something that was done before; is that
15 right?

16 A That is correct.

17 Q Now, can you tell us what original research you and
18 your colleagues on the '752 patent did to address the
19 challenges that you identified?

20 A So we were looking for a processor far into the
21 future. So we knew there was a problem, but we didn't
22 understand the problem. I knew there was a problem in
23 1990/1991, but you don't know how to solve the problem.
24 To come up with a solution, you really have to
25 understand what is going on. So what we did is we built
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1 a model of a future processor and in that model we
2 studied how these mis-speculations would occur.
3 Processors at the time when we were doing that research,
4 there's a notion called an instructional window which is
5 how many instructions are you considering for parallel
6 execution at a time and at that time there were maybe 20
7 or so of that order. What we were concerned about, what
8 if you have several hundred, couple of hundred, 500, a
9 thousand, okay? There are so many more loads and stores
10 and so many more chances for mis-speculations that you
11 better come up with a good solution, otherwise you're
12 not getting anywhere.

13 Q So Professor, you mentioned loads and stores in a
14 program. Do you have a sense of, in a typical program
15 that you would have worked with, what percentage of the
16 programs would have been loads and stores?

17 A It's about a third. So if I have, you know, 300
18 instructions or 200 instructions I'm trying to consider
19 for parallel execution, 60, 65, 70 of them typically
20 would be loads and stores.

21 Q Professor, you mentioned that you built a model.
22 Can you explain a little bit what kind of model that
23 was, how it was built?

24 A Yes. So the way you study something that has not
25 been built yet or you cannot build yet is you build --
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1 you build a piece of software that's called a *simulator*.
2 And that simulator then simulates the execution,
3 simulates what would be happening in the future model.
4 So we built a simulator.

5 Q And did you and Dr. Moshovos, Dr. Breach,
6 Dr. Vijaykumar run experiments using the simulator?

7 A We ran lots and lots of experiments. Each
8 experiment -- here is a typical experiment. Here is a
9 program you want to run that you want to understand its
10 execution behavior. It's going to run for hundreds of
11 millions of instructions. You run the simulation of
12 that processor and then you do many, many more of these
13 with different programs, different parameters, and so
14 on.

15 Q Who ran the experiments using the simulator?

16 A They were done by my graduate students. They were
17 always much better than me at doing it.

18 Q Professor, in this case the graduate students are
19 your coinventors on the '752; is that right?

20 A That is correct. Scott Breach, Andreas Moshovos,
21 and Vijaykumar.

22 Q Professor, what did you do with the results of the
23 experiments you ran in your simulator?

24 A So what we -- what -- we studied the behavior of
25 what was going on, the results we were getting, and made
GURINDAR SOHI - DIRECT

1 a key empirical observation that was going to -- that
2 was a foundation, that was a crux of the solution that
3 we came up with.

4 Q And can you tell us, sir, what that observation
5 was?

6 A Oh. So the observation was, well, you know, say
7 this: Say you have lots and lots of load-store
8 instructions. Any of them could be dependent on any
9 other. But there were only a few load-store
10 instructions that were the problem and their behavior
11 changed over time. So when one load -- a load that may
12 have dependent on one store, at a different point during
13 the time of execution of the program that wasn't going
14 to be the case.

15 Q And were there any other insights that came out of
16 your experiments?

17 A So the key insights were that if you were able to
18 -- so what this phenomena would let us do is it allowed
19 us to build a small circuit, because they were small,
20 that would allow us to learn the dependence
21 relationships as we went along and very accurately
22 predict which one of these loads and stores were going
23 to be the problem in the future.

24 Q Now, you mentioned a small circuit, Professor. Was
25 there a reason it needed to be a circuit?

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1 A Yes, there is a reason to be a circuit. Because
2 this whole tracking of information, whether loads and
3 stores were going to mispredict and make actual
4 decisions on whether a load should be allowed to execute
5 had to be very fast. So it had to be done in circuitry
6 rather than in software.

7 Q Professor, are there any terms that are used to
8 describe the techniques that ended up in the '752
9 patent?

10 A So we started out calling it dynamic approach to
11 improve the accuracy of data speculation, I think. And
12 then we had a different moniker for it, dynamic
13 synchronization speculation -- I forget. And finally,
14 we came up with the term memory dependence prediction,
15 and that's what it's widely known in the community.

16 Q So in your experience, Professor, the phrase memory
17 dependence prediction when used in connection with your
18 work, what does it refer to?

19 A It refers to the technology of the '752 patent.

20 Q What are the benefits of that technology in a
21 microprocessor if one were to use that technology in a
22 microprocessor? Does it give you an advantage?

23 A Oh. Oh, of course. You know, if you can very
24 accurately allow loads to speculate early in time, you
25 would get faster programming execution and more

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1 parallelism and more -- and if you were not throwing
2 away work because you were mis-speculating, then you get
3 energy efficiency. So overall generally efficient
4 program execution.

5 Q Professor, let me ask a question. How did your
6 work relate, if at all, to smartphones, for example?

7 A So inside a smartphone is a microprocessor and
8 inside the microprocessor is the circuitry that
9 determines how the instruction should be processed. And
10 then we have the intelligence circuitry over there to
11 make decisions on when to allow load instructions to go
12 as fast, as soon as possible.

13 Q Let me ask the same question, sir, with respect to
14 tablets. How does your work relate, if at all, to
15 tablets?

16 A Very similarly. In a tablet, at the heart of a
17 tablet is a microprocessor that essentially runs the
18 software. All the applications are software. The
19 software runs on the microprocessor. And inside the
20 microprocessor is the circuitry to use intelligence to
21 make intelligent decisions -- to make intelligent
22 decisions. Sorry about that.

23 Q Excuse me. When did the work on your invention
24 start?

25 A So we started studying the problem for a long time.
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1 You know, when like I said, I was aware of the problem
2 for a long time, but I really couldn't do anything about
3 it until I had assembled a team that could build a
4 simulator to carry out the experiments that we did.
5 Scott Breach and Andreas -- no, and Vijaykumar came on
6 board in about '92. And in '93 Vijaykumar came on
7 board. We started doing all the experiments and took a
8 long time until we get to -- we got to the point where
9 we got to -- where we came up with the idea.

10 Q In the course of that work, did you try other
11 approaches before coming up with the memory dependence
12 prediction ideas of the '752 patent?

13 A Oh, we tried lots and lots of approaches and this
14 is -- this is, you know, life of a researcher. You come
15 up with an idea. You think it's going to work. You try
16 and then figure out how it's going to behave, and then
17 it doesn't behave that well. It doesn't work out that
18 well. You go back to the drawing board and do it all
19 over again, and you do it all over again, and do it all
20 over again. So we tried many, many other things.

21 Q When did you and your coinventors in that process
22 that started in '92/'93, at what point did you come up
23 with the solutions to the problem that you put in the
24 '752 patent?

25 A This was around October of 1995.
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1 Q And then after you came up with those ideas, what
2 was the next step?

3 A So after we decided -- decided how our circuitry
4 was going to be -- how it would work, we implemented a
5 model of that circuitry in the simulator and then ran
6 simulation experiments.

7 Q What did the simulation experiments show you, sir?

8 A The simulation experiments showed us that our
9 technique worked very well, as good as if it had perfect
10 knowledge of all the dependence relationships in many,
11 many cases.

12 Q Professor, when did you have your circuitry up and
13 running in your simulator?

14 A I can't recall the exact date, but sometime in the
15 October, November, early December time frame.

16 THE COURT: Of 1995.

17 THE WITNESS: Of 1995.

18 BY MR. FRISCHLING:

19 Q Professor --

20 MR. FRISCHLING: Could we please have on the
21 system Exhibit 410, not published to the jury, please.

22 Q And Professor, if you please would look at Exhibit
23 410 in your binder.

24 A 410?

25 Q Yes.

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1 A Yes, I have it.

2 Q So first can you tell us if you recognize Exhibit
3 410?

4 A I do.

5 Q And what is Exhibit 410?

6 A It's an email from Vijaykumar to myself and Jim
7 Smith.

8 Q And can you tell us, first of all, is this part of
9 an email chain?

10 A No, it's not part of an email chain.

11 Q And is this something that was created in the
12 course of the ordinary work in your lab?

13 A That is correct.

14 Q Now, is this something -- the author of the email
15 is Dr. Vijaykumar; is that right?

16 A Yes, that is correct.

17 Q Or then Mr. Vijaykumar?

18 A Yes, that is correct.

19 Q And who are the addressees?

20 A Myself and Jim Smith.

21 MR. FRISCHLING: Move admission of Exhibit 410,
22 Your Honor.

23 THE COURT: I note that there are objections
24 pending, but I will admit it.

25 MR. LEE: That's no objection, Your Honor.
GURINDAR SOHI - DIRECT

1 THE COURT: All right. Then it is admitted.

2 Thank you.

3 BY MR. FRISCHLING:

4 Q Professor, we're going to put it on the screen.

5 And if you could tell us, sir, first of all, what is the
6 date of the email?

7 A It's December 11, 1995.

8 Q And what was the status of the work with the
9 simulator and whether or not your system was up and
10 running as of December 11, 1995?

11 A So we had implemented the scheme inside our
12 simulator and it was running and we were carrying out
13 experiments of it.

14 Q What is the language, sir, in the email, if any,
15 that you think supports that?

16 A That's if you go down to the second paragraph and
17 one, two, three, the third line to the right.

18 Q The sentence that starts *To implement*?

19 A That's right. So "To implement the idea in the
20 multiscalar simulator, Scott Breach, Andreas Moshovos,
21 and I discussed some of the options and Scott
22 implemented an efficient scheme in the simulator."

23 Q And so what is your belief, sir, as to whether your
24 ideas embodied in the '752 patent were up and running in
25 your simulator as of December 11, 1995?

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1 A They were up and running by then.

2 Q Professor, when was the application for the '752
3 patent filed?

4 A December, I think it was 26, 1996.

5 Q And do you recall when the patent was granted by
6 the Patent Office?

7 A July 14, 1998.

8 Q So about how long did it take the Patent Office to
9 examine and consider the '752 patent application?

10 A About a year-and-a-half.

11 Q Now, before that 1998 issue date for the '752
12 patent, did you or your coinventors publish any papers
13 regarding your work that's embodied in the '752 patent?

14 A Yes, we did.

15 Q Can you tell us when the first such paper was
16 published?

17 A So the first such paper was published in March of
18 1996.

19 Q And if we could have, please, Exhibit DX 865, if
20 you would turn to that in your binder, sir.

21 MR. FRISCHLING: And if we can have that on the
22 system. I think I've disabled to the jury. Yes. Good.

23 Q Professor, first of all --

24 THE COURT: We had it there. Sorry.

25 MR. FRISCHLING: It seems to get away from me,
GURINDAR SOHI - DIRECT

1 Your Honor.

2 THE COURT: That's fine. I think we're all up
3 and running.

4 MR. FRISCHLING: Let me try that one more time.

5 THE COURT: No, I think you're good. Don't
6 touch it again and you're in business.

7 B MR. FRISCHLING:

8 Q Professor, let me ask, first of all, if you
9 recognize this as the March '96 publication you were
10 referring to.

11 A Yes, that is.

12 MR. FRISCHLING: So we move admission of
13 Exhibit 865.

14 THE COURT: It is admitted.

15 BY MR. FRISCHLING:

16 Q Thank you, Professor. What was the purpose of
17 publishing this technical report?

18 A So the purpose was to tell others who read our work
19 about what we had done.

20 Q And can you describe to us, Professor, how the
21 technical report relates to the '752 patent?

22 A So the technical report was what we used as a
23 starting point to prepare the '752 patent application.

24 Q And in terms of the technical ideas, how did the
25 technical ideas communicated in the technical report
GURINDAR SOHI - DIRECT

1 relate to those in the '752 patent?

2 A That's -- the technical ideas in this paper are
3 what we have essentially in the '752 patent.

4 Q So Professor, was the technical report, Exhibit
5 865, peer reviewed?

6 A No, it was not. It was just our department
7 technical report.

8 Q And what, if anything, did you do to get
9 peer-review feedback on your ideas?

10 A So we had submitted this tech report, at the same
11 time it appeared, the tech report we had submitted to a
12 conference for review.

13 Q What conference?

14 A Oh, it's an acronym. I can't remember the whole
15 name. It was the A-S-P-L-O-S. We call it ASPLOS
16 conference.

17 Q Can you tell us, Professor, what is peer review?
18 What is that process?

19 A Oh, so the peer review for a conference works as
20 follows: There's a person that's the program chair who
21 is responsible for selecting the papers and for managing
22 the process of the selection of papers. There is about
23 25 people that are called a program committee.

24 Now, the program chair gets each paper peer
25 reviewed by five or six experts in the field and then
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1 the conference committee collectively considers the peer
2 reviews and then decides whether the papers should be
3 accepted or not.

4 Q So when you submitted the paper -- first of all,
5 the submission to ASPLOS, was the content the same or
6 different than the 865 technical report?

7 A It was the same. It was -- what we did is we took
8 the submission and made it into a technical report.

9 Q Professor, what happened to the submission that you
10 made to ASPLOS?

11 A Well, unfortunately it wasn't accepted.

12 Q Did you get any feedback from those expert peer
13 reviewers as to why?

14 A Yes, we did.

15 Q Take a look at Exhibit 452, please, in your binder.

16 MR. FRISCHLING: And in the meantime, if we can
17 have that up for the court, please.

18 Q Do you recognize Exhibit 452, sir?

19 A Yes, I do.

20 Q What is it?

21 A This is an email from Andreas Moshovos forwarding
22 us the reviews for that paper and the decision that the
23 paper was not accepted.

24 Q Okay. Professor, what was the date of that?

25 A June 5th, 1996. So he forwarded us on June 5 and
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1 the reviews came on June 4.

2 Q Is this a typical type of communication that would
3 be received in the ordinary course of business in your
4 laboratory?

5 A Yes, it is.

6 MR. FRISCHLING: We'd move admission of Exhibit
7 452, Your Honor.

8 THE COURT: The objection is continued?

9 MR. LEE: Your Honor, we have it showing no
10 objection.

11 THE COURT: That's fine. I may not have the
12 latest version. But in any event, it is admitted. You
13 may publish to the jury.

14 MR. FRISCHLING: Thank you, Your Honor.

15 BY MR. FRISCHLING:

16 Q So Professor, what was the problem that was
17 identified by the ASPLOS reviewers in your review?

18 A I think, you know, one of the key things is that we
19 had just -- the insight that we had, that I talked about
20 earlier, we had just put a sentence over their head.

21 Hey, this is why we believe. And there's a lot of
22 skepticism in them and a lot of skepticism hey, you
23 know, the scheme that you're proposing is not going to
24 work.

25 Q Professor, if you take a look at Exhibit 452, can
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1 you point us to an example of what you're referring to?

2 A So if you go to the next page --

3 MR. FRISCHLING: Could you please scroll up to
4 the next page?

5 Q And you see -- if you go to which is a number --
6 says number 2, this one here.

7 A So here is an example of the skepticism. "Do you
8 have any data to back up your claim in the second
9 paragraph of section 3 (i.e. data) showing only a few
10 static load-store pairs account for most of the
11 mis-speculations. If so, you should show it. This is a
12 key item."

13 Q So just to be clear, what did you understand data
14 showing that only a few static load-store pairs account
15 for the -- most of the mis-speculations, excuse me --
16 what did you understand that phrase to be talking about?

17 A So that was precisely highlighting the inside and
18 empirical observation that we had made.

19 Q After the ASPLOS submission was turned down,
20 Professor, what, if anything, did you and Dr. Moshovos,
21 Dr. Vijaykumar, Dr. Breach do when you learned that?

22 A So we revised -- we revised the paper, and in
23 November of 1996 we submitted to another conference.
24 The acronym for it is ISCA. I-S-C-A.

25 Q And can you tell us briefly what the ISCA
GURINDAR SOHI - DIRECT

1 conference is?

2 A So it's again, it's the International Symposium on
3 Computer Architecture. It's the premier conference in
4 the research area of computer architecture.

5 Q What did you add to the submission to -- can I call
6 it ISCA; is that correct?

7 A Yes.

8 Q What did you add to the submission to ISCA that you
9 didn't have in the 1996 -- March 1996 submission?

10 A So we had a lot more data, especially trying to
11 highlight the empirical phenomena we had observed. And
12 then also added more experimentation data.

13 Q Now, is that data data that was generated using the
14 simulator we spoke about from the fall of '95?

15 A That is correct.

16 Q Professor, would you take a look at Exhibit PX 003,
17 please, in your binder.

18 MR. FRISCHLING: And if we could have that
19 available for the Court and the parties.

20 Q And while we're doing that, would you tell us,
21 please, if you recognize it?

22 A Yes, I do.

23 Q I believe there's a PX 003A that's a clearer copy
24 of the same. Unfortunately that one was very hard to
25 read.

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1 MR. FRISCHLING: Can we put that one up for
2 everybody's benefit, on the parties and the Court.

3 THE WITNESS: I want to add something to my
4 last answer. We were constantly improving and modifying
5 the simulator. So the simulator that we had for test
6 results may not have been the exact same simulator.

7 BY MR. FRISCHLING:

8 Q Thank you, Professor. I'd ask you to look at, just
9 so we're both on the same page literally, would you look
10 at PX 003A.

11 A Yes, I have that in front of me.

12 Q Is that the ISCA 1997 paper that you were referring
13 to?

14 A Yes, that is.

15 Q And was that paper ultimately published?

16 A Yes, it was accepted for publication.

17 MR. FRISCHLING: We would move admission of PX
18 003A, Your Honor.

19 THE COURT: It is admitted and may be
20 published.

21 MR. FRISCHLING: Thank you.

22 BY MR. FRISCHLING:

23 Q So Professor, this time around what was the
24 response to the paper that contained the data?

25 A This time around there was still a fair degree of
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1 skepticism of some here.

2 Q And did you receive reviews on the paper?

3 A Yes, we did.

4 Q And if you'd look in your binder, please, at
5 Exhibit 461.

6 A Yes.

7 Q First of all, can you tell us if you recognize the
8 document?

9 A Yes, I do.

10 MR. FRISCHLING: Could we have that up, please.

11 Q Is this the review feedback you got from the ISCA
12 reviewers?

13 A Yes, it is.

14 MR. FRISCHLING: So, Your Honor, we'd move
15 admission of Exhibit 461.

16 THE COURT: It is admitted.

17 BY MR. FRISCHLING:

18 Q So describe for us, sir, is the process the same or
19 similar to what you went through for review of the
20 ASPLOS submission?

21 A The process is essentially the same as before as
22 the ASPLOS submission.

23 Q So are there experts involved in reviewing the
24 report?

25 A Yes, there are. And then there's a committee of
GURINDAR SOHI - DIRECT

1 about 25 people selects which papers get accepted.

2 Q And if you look at the beginning of Exhibit 461,
3 there's a subject line *ISCA 97 paper number 188*. Do you
4 see that?

5 A Yes, I do.

6 Q And below that can you tell us what the ISCA
7 committee was communicating to you?

8 A They were communicating it was a great pleasure to
9 inform us that our paper had been accepted and only 30
10 out of 150 papers were accepted.

11 Q Thank you, Professor. Now let's go back for a
12 moment to the actual paper itself, PX 3A. Was that
13 paper, in fact, presented to the ISCA conference?

14 A Yes, it was.

15 Q And who presented the paper?

16 A Andreas Moshovos did.

17 Q Why did then Mr. Moshovos present it?

18 A So after we had all collectively come up with a
19 scheme and experimented it, Andreas took lead in
20 carrying out the experiments and then gathering the data
21 and presenting the data and making the figures. So he
22 presented it and he was the first author of that paper.

23 Q Now, being first author in your lab, does that
24 signify that the other authors did not contribute as
25 significantly?

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1 A No, it doesn't do that.

2 Q Professor, did you attend the ISCA conference?

3 A Yes, I did.

4 Q And what was the reaction to the paper when it was
5 presented?

6 A Well, there was some skepticism even then.

7 Q So what was your understanding, sir, of skepticism
8 when you had had this paper accepted and presented it at
9 the conference?

10 A My understanding of the skepticism was hey, you
11 know, this is not what we need in processors that were
12 -- people were thinking about at that time. And what we
13 had seemed quite complex.

14 Q And what would be the problem with a complex
15 solution?

16 A Well, a complex solution would take more hardware
17 to implement, it would be slow, and so this hardware is
18 present in one of the -- sort of most important points
19 inside the computer, if you will. It is -- you're
20 making a decision should I execute this instruction. So
21 you do not want to slow down that decision-making. So
22 that was some of the concerns.

23 Q Professor, did you ever build an actual physical
24 processor based on the invention of the '752 patent?

25 A No, we did not.

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1 Q Why not?

2 A Variety of reasons. Two important ones is we are
3 academic researchers. We do research, come up with
4 ideas, train students. That's what we do at a
5 university. We don't build processors.

6 Second, and more importantly, is that the power of
7 this technique we felt would only come out when you had
8 processors that were doing, you know, lots more
9 parallelism, if you will. And, you know, so at that
10 time, the processors would require much more hardware
11 and at that time the processors had 7 to 10 million
12 transistors. That's what they were being built with.
13 We felt the power of this technique would really come
14 out when there were 2/300 million transistors or billion
15 transistors.

16 Q Professor, would you look at Exhibit 5 in your
17 binder. Can you tell us please what that is, sir.

18 A That -- this is a set of slides from a presentation
19 that I gave.

20 Q Now, when did you prepare those slides?

21 A September of 1996.

22 Q And how do those slides relate to the -- well, let
23 me back up. To whom did you deliver the slides?

24 A So I gave a presentation on these -- with this
25 slide deck internally in the computer sciences

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1 department in September of 1996. Then I gave the same
2 presentation at Intel in Portland in January 1997, I
3 believe. And then Intel in Haifa, Israel in February or
4 early March of 1997.

5 Q Professor, Exhibit 5 is a copy of that
6 presentation; is that right?

7 A Yes, that is correct.

8 MR. FRISCHLING: We move admission of Exhibit
9 5, Your Honor.

10 MR. LEE: No objection, Your Honor.

11 THE COURT: It is admitted.

12 BY MR. FRISCHLING:

13 Q Professor, can you tell us what the purpose was of
14 this particular presentation?

15 A So I was getting my vision off what I taught when
16 we had billion transition -- chips with a billion
17 transistors, which is a hundred times more than we had
18 at the time, how some of the important parts of process
19 in getting out a program execution would happen.

20 Q And how does this presentation, Exhibit 5, relate
21 to the concepts in the '752 patent?

22 A So one of the -- so what we -- the key technology
23 that we implied is that you're going to have -- if we --
24 if you turn to Slide 8, please. So what you want to do
25 if you want to facilitate multiple operations for cycle
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1 parallelism doing multiple operations at the same time,
2 we have to be able to alleviate dependencies for data
3 dependency speculation. And then if you're doing data
4 dependence speculation, then you really have to have
5 some very, very clever techniques to get that
6 speculation correct and that is a technology of the '752
7 patent.

8 Q Professor, if you'd take a look -- first of all,
9 did you give other presentations about the work in the
10 '752 patent?

11 A Yes. We gave multiple -- I gave multiple
12 presentations about the work in the '752 patent.

13 Q So let me come to those in a moment. I actually
14 wanted to ask you with regard to Exhibit 5, how did you
15 summarize your presentation to those at Intel, both in
16 Israel and in the U.S. when you presented it?

17 A If you turn to Slide 19. So I started by
18 summarized that billion transistor chips are going to
19 dramatically alter the hardware and microarchitecture of
20 the structure view of the computer. And in the second
21 point, I say you're going to have aggressive users of
22 speculation.

23 Q So Professor, if you would turn to Exhibit 385 in
24 your binder.

25 A Yes.

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1 Q Is Exhibit 385 another presentation prepared by you
2 or your colleagues?

3 A Yes. This is a presentation that we collectively
4 prepared.

5 Q And when was that presentation prepared?

6 A This presentation was prepared sometime in August
7 1996.

8 Q And was it given to others?

9 A Yes, it was.

10 Q Approximately when?

11 A August 23, 1996.

12 Q Professor, who gave that particular presentation?

13 A Andreas Moshovos did.

14 Q And who attended that presentation?

15 A So this presentation was as a part of -- we have a
16 program that we had just started, the Industrial
17 Affiliates meeting, where we invited people from several
18 companies to come learn about the research in computer
19 architecture that was going on at U.W. Madison.

20 MR. FRISCHLING: And I move admission of
21 Exhibit 385, Your Honor.

22 MR. LEE: No objection, Your Honor.

23 THE COURT: It is admitted.

24 BY MR. FRISCHLING:

25 Q And am I correct -- let me withdraw that, Professor
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1 Sohi. How does this particular exhibit relate to the
2 work in the '752 patent?

3 A This is describing the technology of the '752
4 patent.

5 Q Now Professor, can you identify for us the
6 companies that you recall that attended the Architecture
7 Affiliates meeting where this presentation was given?

8 A I can recall a few. There were people from IBM,
9 people from Intel, people from Cray Research, Sun
10 Microsystems, and DEC.

11 Q What is DEC?

12 A DEC was Digital Equipment Corporation.

13 Q Thank you, Mr. Sohi. Now, you described to us
14 before some skepticism when your papers were first
15 received. Has that changed over time?

16 A Yes, it has.

17 Q In what way?

18 A We were -- we've received awards for this work.

19 Q What awards are you talking about, sir?

20 A Andreas Moshovos received the Maurice Wilkes award
21 specifically for this work, and I had received the
22 Eckert-Mauchly award, which also included this work.

23 Q So, Professor, let's take those one at a time.
24 What is the Maurice Wilkes award?

25 A The Maurice Wilkes award is given by -- again, I'll
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1 use acronyms -- ACM SIGARCH for an outstanding
2 contribution made by an individual no more than 20 years
3 from when they started their professional career at the
4 time of receiving the award.

5 Q What is ACM SIGARCH?

6 A Okay. ACM is the Association for Computing
7 Machinery, which is the largest professional society of
8 people in computing. And then this ACM Computing
9 Society has several sub, what they call special interest
10 groups, that are in different areas of computing. And
11 one of the special interest groups is the special
12 interest group on computer architecture. So SIGARCH is
13 the special interest group on computer architecture.

14 Q And how is SIGARCH viewed in the computer
15 architecture community?

16 A It is the, you know, the leading professional
17 organization for members in the computer architecture
18 community.

19 Q When did Professor Moshovos receive this award?

20 A I believe it was 2010.

21 Q Now, Professor, would you look at Exhibit 151 in
22 your binder, please. Tell us what that is.

23 A This is a picture of the plaque that Andreas
24 Moshovos -- when Andreas Moshovos received the award.

25 Q How do you know that?

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1 A I was there. It was a very proud moment for me.

2 MR. FRISCHLING: Move admission of Exhibit 151,
3 Your Honor.

4 THE COURT: It is admitted.

5 MR. FRISCHLING: If we could have this up,
6 please.

7 BY MR. FRISCHLING:

8 Q First of all, Professor, what is the outstanding
9 contributions that Dr. Moshovos was recognized for in
10 the ACM Maurice Wilkes award?

11 A This citation is for foundational contributions to
12 the area of memory dependence prediction.

13 Q Now, what did you understand memory dependence
14 prediction to be referring to?

15 A This is the technology of the '752 patent that was
16 also presented in the technical report that we described
17 and the ISCA 1997 paper.

18 Q How do you know, Professor, that this award is
19 related to the work in the '752 patent?

20 A Oh. Because I prepared the nomination for Andreas
21 Moshovos.

22 Q So you nominated Dr. Moshovos.

23 A Yes, I did.

24 Q And once you nominated him, what role, if any, did
25 you have in the process of deciding whether he was going

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1 to be granted an award?

2 A So our professional societies have very, very
3 strict conflict-of-interest rules. If you have any
4 conflict of interest, you cannot be in any or be
5 associated with any deliberations. So I had zero.

6 Q Professor Sohi, what work did you call out to the
7 committee's attention when in your nomination of
8 Professor Moshovos?

9 A I called out the March of 1996 tech report --
10 technical report that we had come up with earlier, the
11 1997 ISCA paper, and the 75 -- and the patent.

12 Q Just to be clear, sir, the March technical report
13 that you called out to the committee, that was the
14 exhibit that we looked at earlier from March of 1996;
15 correct?

16 A That is correct.

17 Q And the ISCA paper, that was Plaintiff's Exhibit 3A
18 that we saw earlier; is that right?

19 A That is correct.

20 Q And the '752 patent, of course, is Exhibit 1 that
21 we brought out.

22 A That is correct.

23 Q Now, if you could remind us, Professor, how is it
24 that the March '96 paper and the ISCA '97 paper relate
25 to the '752 patent?

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1 A The '752 patent embodies the technology that was
2 described in those two papers.

3 Q Professor, what is your understanding of why it
4 took from '96 or '97 when those papers were published
5 until 2010 for Dr. Moshovos to receive the award for his
6 work?

7 THE COURT: Just hang on a second. I expect we
8 have a foundation objection.

9 MR. LEE: I have an objection. Foundation.

10 THE COURT: I'll sustain that. If you want to
11 lay a different question or lay a foundation.

12 BY MR. FRISCHLING:

13 Q Professor, do you have an understanding in your own
14 view as to or from communications with others as to why
15 Professor Moshovos received the award in 2010?

16 THE COURT: I'll sustain the objection.

17 BY MR. FRISCHLING:

18 Q Dr. Sohi, what was the attitude toward your
19 invention by the time of 2010?

20 MR. LEE: Objection. Foundation. If we're
21 going --

22 THE COURT: You have to sort of lay -- you have
23 to lay the basics, otherwise it's just not going to come
24 in.

25 MR. FRISCHLING: Yes, Your Honor.
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1 BY MS. FRISCHLING:

2 Q Professor, did you have communications with, after
3 Professor Moshovos received the award, with those
4 involved with granting the award?

5 A I recall some.

6 Q And what was your recollection, if you have any, of
7 why -- let me withdraw the question.

8 Professor, you mentioned another award,
9 Eckert-Mauchly, if I've got that right.

10 A That is correct.

11 Q Who received that award?

12 A I did.

13 Q And when was that?

14 A That was in 2011.

15 Q And who gave you that award?

16 A Again, use acronyms, it was the ACM that we talked
17 about before, and then there's another professional
18 society, the IEEE. And they jointly give that award.

19 Q Is that a similar selection process with committees
20 as you described before?

21 A Well, yes. They have now a committee of six
22 people, three appointed by the ACM and three appointed
23 by the IEEE.

24 THE COURT: You're saying the IEEE or IAAA?

25 THE WITNESS: Sorry. I'll try and spell it out
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1 for you.

2 THE COURT: No. If you know what the acronym
3 stands for, that would be fine.

4 THE WITNESS: Yes. It's the International
5 Electronics -- Institution of Electrical and Electronics
6 Engineers.

7 THE COURT: All right. Please, continue.

8 THE WITNESS: So it's the IEEE.

9 BY MR. FRISCHLING:

10 Q And this was a combined award with the IEEE or
11 IEEE?

12 A And ACM.

13 Q Very good. Professor, who nominated you for that
14 award?

15 A Professor Mateo Valero of the Barcelona
16 Supercomputing Center in Spain, the director.

17 Q And did Dr. Moshovos or any of your coinventors
18 have anything to do with your receiving that award?

19 A No, they did not.

20 Q And do you recognize Exhibit 601 in your binder?

21 A Yes, I do.

22 Q Professor, what are we looking at in Exhibit 601?
23 What are you looking at, sir?

24 A This is a press release announcing that I won the
25 2011 Eckert-Mauchly award.

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1 MR. FRISCHLING: We'd move admission of Exhibit
2 601, Your Honor.

3 THE COURT: And it is admitted.

4 MR. FRISCHLING: If we can have it on the
5 screen, please.

6 BY MR. FRISCHLING:

7 Q So Professor, can you tell us what the IEEE and ACM
8 describe the Eckert-Mauchly award to be? I'm calling
9 your attention to the second paragraph.

10 A So the Eckert-Mauchly award is known as the
11 computer architecture community's most prestigious
12 award.

13 Q And Professor, is there anything in the award that
14 signaled to you that it was related to the work of the
15 '752 patent?

16 A Yes, there is.

17 Q And what would that be, sir?

18 A So if you go down, and one, two, three, fourth line
19 starting at the end, his group -- his group also
20 proposed the idea of memory dependence prediction to
21 further improve instruction level parallelism, a
22 technology that has been considered a key innovation in
23 some recent microprocessors.

24 Q And again, Professor, what did you understand the
25 reference to memory dependence prediction to refer to in
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1 that passage?

2 A This is the technology embodied in the '752 patent.

3 Q Professor, what is your view as to why attitudes
4 seem to have shifted from skepticism when those first
5 papers were submitted to awards in 2010/2011?

6 A My view is that when people were building chips
7 with a smaller number of transistors where they weren't
8 trying to do lots of instructions in parallel, this
9 technology really isn't needed. But when you really
10 start trying to do lots and lots of instruction level
11 parallelism, this technology is critical, and people
12 came to that realization over the years.

13 Q Those are those chips that have hundreds of
14 millions or more transistors; is that right?

15 A That is correct.

16 Q And when did those chips become commercially
17 available?

18 A So one of the earliest high-end chips was in 2006,
19 a chip by Intel Core II for the processors.

20 Q And are there other chips today, Professor, that
21 have hundreds of millions or billions of transistors?

22 A Yes. There are chips like the Apple processors.

23 Q Thank you, Professor Sohi.

24 MR. FRISCHLING: No further questions at this
25 time, Your Honor. (5:04 p.m.)

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1 THE COURT: All right. Cross-examination.
2 Please proceed.

3 CROSS-EXAMINATION

4 BY MR. LEE:

5 Q Good afternoon, Dr. Sohi.

6 A Good morning, Mr. Lee.

7 Q I want to start where you ended with your
8 discussion or your opinion about why the industry has
9 moved to '752 patent. Do you remember that?

10 A Yes, I do.

11 Q After 17 years, the only microprocessor company
12 that's taken a license is Intel; correct?

13 A That is my understanding.

14 Q After you sued them; correct?

15 A After WARF sued them, that is correct.

16 Q Fair enough. To be clear, WARF owns the '752
17 patent today; correct?

18 A That is correct.

19 Q But you have a significant financial interest in
20 this case, do you not?

21 A That is correct.

22 Q You get 5 percent of whatever is recovered;
23 correct?

24 A That is correct. My coinventors and I, per
25 University policy, the inventors get 20 percent and we
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1 have an equal share in that. That is correct.

2 Q My question is you have a substantial financial
3 interest in this case and you had a financial interest
4 in the Intel case; correct?

5 A That is correct.

6 Q Now, at the time that you nominated Dr. Moshovos
7 for the award that you described, how much time did it
8 take from the time of nomination to the time of the
9 award?

10 A I don't know. Two, three years.

11 Q Isn't it true that you sued Intel in 2007 -- WARF
12 sued Intel. I'm sorry. WARF sued Intel in 2007?

13 A I think that's correct.

14 Q On the '752 patent; correct?

15 A That's correct.

16 Q The nomination of Dr. Moshovos for this award was
17 made after you sued Intel and while the case was
18 pending; correct?

19 A The first time I made the nomination, that's likely
20 correct.

21 Q Okay.

22 A I don't have a recollection of exactly when the
23 first time I did that.

24 Q Now, if I could take you back in time, I think you
25 told the Ladies and Gentlemen of the Jury that you and
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1 your colleagues came up with your invention sometime in
2 the fall of 1995, October 1995?

3 A Yes, that is correct.

4 Q Now, Dr. Sohi, what I'd like to do to help level
5 set us all is just talk about what was known before you
6 did the work in October 1995; okay?

7 A What was publicly known?

8 Q What was publicly known.

9 A Okay. What was publicly --

10 Q All the instructions were publicly known.

11 THE COURT: Why don't we wait until the next
12 question. He's just giving a general highlight of
13 subject matter. Why don't you wait for the next
14 question.

15 THE WITNESS: Okay.

16 BY MR. LEE:

17 Q Dr. Sohi, if I'm unclear, you let me know. I'm
18 just trying to orient you so that you know what subject
19 we're going into. Okay?

20 A Sure.

21 Q Okay. So I'm now trying to go back to the period
22 before you and your three colleagues did your work.
23 Okay? And I'm trying to discuss with you what was known
24 publicly in the field before then. Okay?

25 A Sure.

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1 Q Load instructions certainly were known before then;
2 correct?

3 A Yes.

4 Q And store instructions were certainly known before
5 then?

6 A Yes.

7 Q The idea of dependent/independent load-and-store
8 instruction pairs was known; correct?

9 A Yes.

10 Q The idea of data dependency was known; correct?

11 A Yes.

12 Q And, in fact, in your patent you discuss data
13 dependency, do you not?

14 A I believe we do.

15 Q Well, so we're clear, if you turn to tab 3 of your
16 notebook, it's another copy of the patent --

17 MR. LEE: Which is in evidence already, Your
18 Honor.

19 Q This is your patent; correct?

20 A Yes. Correct.

21 Q And let me turn you to column 1, line 67.

22 MR. LEE: And if I could ask to have
23 highlighted column 1, line 67, to column 2, line 5.

24 THE COURT: Technically that would be a blow
25 out, but we'll call that close enough. Was there
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1 something that you -- once highlighted you had a
2 question?

3 MR. LEE: Yes.

4 BY MR. LEE:

5 Q Do you see the definition of a data dependency as a
6 dependency of instructions that use data on earlier
7 instructions that change data; correct?

8 A Correct.

9 Q That is a correct definition; correct?

10 A That is a correct definition.

11 Q And that is something that was known before you
12 began your work in October of 1995; correct?

13 A Yes, that is correct.

14 Q Now, you also mentioned the concept of executing
15 instructions out of order. Do you remember that?

16 A Yes, that is correct.

17 Q That was something that was known before you and
18 your colleagues began your work in October of 1995.

19 A Yes. And actually I came up with one of the models
20 that's widely used.

21 Q And Dr. Sohi, just so we can focus on this
22 collection of ideas: Loaded instructions, store
23 instructions, data dependencies, independent
24 instructions, and dependent instructions, you don't
25 claim to have invented those concepts, do you?

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1 A No, I do not.

2 Q They had been around for three or four decades
3 before you began to work in 1995; correct?

4 A That is correct.

5 Q Now, the idea that there could be data dependence
6 between load-and-store instructions was something that
7 was known before you began your work, and in fact, had
8 been known for some time; correct?

9 A That is correct.

10 Q Before you began your work, there were also
11 different techniques for detecting dependencies between
12 instructions; correct?

13 A Yes, that is correct.

14 Q And you certainly didn't -- don't claim to have
15 invented the idea of detecting dependencies between
16 instructions; correct?

17 A No.

18 Q You claim that you came up with a specific idea of
19 how to detect mis-speculations in the context you
20 described to Mr. Frischling; correct?

21 MR. FRISCHLING: Objection. Form.

22 THE COURT: I'll sustain.

23 MR. LEE: I'll withdraw.

24 THE COURT: I'll sustain that objection. Next
25 question.

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1 BY MR. LEE:

2 Q You don't claim to have invented the idea of
3 detecting dependencies between instructions in the '752
4 patent; correct?

5 A That is correct.

6 Q Now, the patent also discusses something the jury
7 hasn't heard about called *ambiguous dependencies*, does
8 it not?

9 A It does. I think the jury has heard something
10 about them.

11 Q And the concept of ambiguous dependencies was
12 something that was known well before you began your work
13 in October 1995.

14 A That is correct.

15 Q And ambiguous dependency is a circumstance where
16 you can't quite tell if the load instruction and the
17 store instruction are, in fact, dependent; correct?

18 A That is correct.

19 Q And before 1995, computer scientists knew and were
20 dealing with ambiguous dependencies; correct?

21 A That is correct.

22 Q Now, as you told Mr. Frischling, a processor can
23 speculate; correct?

24 A That is correct.

25 Q And before 1995, computer scientists knew that load
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1 instructions could be allowed to speculate; correct?

2 A That is correct.

3 Q And they, in fact, had known about that for many
4 decades; correct?

5 A I don't know if it was many decades, but it was
6 known before then.

7 Q Right. You certainly don't think they invented
8 that concept in the '752 patent; correct?

9 A Can you please --

10 Q Sure.

11 THE COURT: You don't claim to have invented
12 the idea of data dependencies.

13 THE WITNESS: The speculation, no.

14 BY MR. LEE:

15 Q And the idea of speculation -- speculatively
16 executing ambiguous instructions is not something that
17 you and your inventors, you and your colleagues claim to
18 have invented; correct?

19 A Yeah.

20 Q Right.

21 A That's correct.

22 Q Now, let's talk about mis-speculations. The idea
23 of mis-speculations you discussed with Mr. Frischling;
24 correct?

25 A That's correct.

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1 Q And before 1995, the idea of mis-speculations was
2 something that was known in the field; correct?

3 A That is correct.

4 Q And scientists knew that if you had an instruction
5 that mis-speculated, you had to squash and start over
6 again; correct?

7 A That is correct.

8 Q It was a problem; correct?

9 A That is correct.

10 Q And that was all known before you began your work.

11 A That is correct.

12 Q Now, before 1995 scientists knew -- in the field
13 knew that you could stop a load from speculating if you
14 wanted to; correct?

15 A Publicly?

16 Q Yes.

17 A No.

18 Q Okay. Well, let's explore that a little bit. You
19 knew before you began your work that scientists in the
20 field had published on the concept of prediction, had
21 they not?

22 A It was a different type of prediction.

23 Q Well, but in the microarchitecture field, had
24 scientists published on the idea of prediction?

25 A Prediction is a concept. There are many different
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1 types of prediction. Scientists had published on some
2 types of prediction, but nothing on data dependence
3 prediction.

4 Q Well, would you agree with me that before you began
5 your work, there were all sorts of different type of
6 predictions out there?

7 A There's lots. There's weather prediction. There's
8 lots of predictions.

9 Q Well, turn if you would -- I'm sorry. You agree
10 with me that there are lots of sorts -- lots of sorts of
11 different types of predictions.

12 THE COURT: He just did agree with you,
13 Counsel. Next question.

14 BY MR. LEE:

15 Q Now, the patent itself describes both control and
16 data dependencies; correct?

17 A That is correct.

18 Q And just to be clear, if I turn you to column 1,
19 line 60.

20 A Sorry.

21 Q You see the reference to control and data
22 dependencies?

23 A Yes, I do.

24 Q And the patent discovers -- discusses control
25 dependencies in the context of branch prediction;

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1 correct?

2 A That is correct.

3 Q The idea of branch prediction is something that had
4 been worked on before your work on the '752 patent;
5 correct?

6 A That is correct.

7 Q In fact, it had been worked on by Professor Smith
8 from the University of Wisconsin in 1981.

9 A That is correct.

10 Q And the branch prediction work is analogous
11 technology to the work of the '752 patent, isn't it?

12 A It's a different problem.

13 Q Is it analogous technology or not?

14 A Well, I've used the word analogous technology to --
15 at times, but it's different.

16 Q Well, you've used the word analogous technology to
17 describe the branch prediction technology; correct?

18 A Yes, I have.

19 Q Now, in Dr. Smith's work he actually describes
20 dynamic prediction, does he not?

21 A In Dr. Smith's 1981 work?

22 Q Yes.

23 A I haven't looked at that paper in a long time so I
24 couldn't answer that question.

25 Q Well, let me turn you to tab 7 in your notebook.
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1 And we'll put it on a screen, but not for the jury. Do
2 you find Dr. Smith's 1981 paper?

3 A Yes, I do.

4 Q And this is a paper he published entitled *Study of*
5 *Branch Prediction Strategies*.

6 A That is correct.

7 Q And this is the paper that you had in mind in 1981;
8 correct? Published in 1981.

9 A This is the paper that I -- of course came up after
10 1981 since I started grad school only in 19 --

11 Q Fair enough. So after 1981, but dated 1981.

12 A Yes.

13 MR. LEE: We offer it, Your Honor.

14 THE COURT: I will admit it.

15 BY MR. LEE:

16 Q There we go. This is the 1981 paper by your
17 colleague Dr. Smith; correct?

18 A That is correct.

19 Q And in the title it refers to branch prediction;
20 correct?

21 A It does.

22 Q And that's the same branch prediction that was
23 referred to in your patent; correct?

24 A Well, I haven't -- that's correct.

25 Q Yes. And if we were to turn in the paper to the
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1 page that says 136 at the bottom, and on the right-hand
2 side you see a column that says Strategy 1. And I'm
3 going to bring up -- ask that Strategy 1 be up and then
4 I'm going to ask to have two things highlighted.

5 At the top it says "Predict that all branches --
6 I'm sorry. "Predict that all branches will be taken."

7 Do you see that?

8 A I do.

9 Q And then at the very bottom of this section it
10 says -- there's a sentence which reads, and I'll
11 highlight it as I go. "This leads to dynamic prediction
12 strategies in which the prediction varies on branch
13 history."

14 Do you see that?

15 A I do.

16 Q And that is, in fact, what Dr. Smith said in 1981?

17 A It appears to be.

18 Q Yes. Now, let me go back to your patent, if we
19 could. It's still at tab 3 and it's Plaintiff's Exhibit
20 1. I want to take you to column 9, line 40 to 43.

21 MR. LEE: And don't -- we don't need to put
22 anything up yet, but let me just ask you this first.
23 Let's not highlight --

24 THE COURT: Just don't get ahead.

25 THE WITNESS: I'm sorry.
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1 THE COURT: That's fine. Why don't you ask
2 your question.

3 BY MR. LEE:

4 Q Dr. Sohi, who drafted the patent application?

5 A Who drafted the patent application.

6 Q Wasn't it Andreas Moshovos who worked with a lawyer
7 to draft the patent application?

8 A No. We collectively worked with a lawyer to draft
9 the patent application.

10 Q Okay. And the patent application then becomes part
11 of the specification that we see on the screen now;
12 correct?

13 A That is correct.

14 Q So the patent specification has words that you put
15 on paper to apply for the patent; correct?

16 A That's my understanding.

17 Q All right. Could I focus you, Dr. Sohi, on column
18 9, line 40 to 43.

19 A Sorry. Can you tell me that tab again?

20 Q Tab 3. And I'm taking you to column 9, line 40 to
21 43.

22 A 40 to 43.

23 Q Yes. And I've now called it out so you can look at
24 it on the hard copy or you can look at it on the screen.

25 A Well, I like looking at the hard copy because
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1 sometimes you call out stuff without the text around it
2 and this is the context of the text.

3 Q Fair enough. Whatever works best for you.

4 A Yes.

5 Q And if the hard copy works, I think you have it
6 now.

7 THE COURT: The question is?

8 Q Do you see the portion that begins at column 3,
9 line 40 to 43, that begins "Referring now to Figure 3,
10 the normal operation of a data speculation circuit 30,
11 such as is known in the prior art, must be modified
12 slightly to accommodate the present invention."

13 Do you see that?

14 A Yes. And I see the sentence after that too.

15 Q Right. I've read the sentence correctly; right?

16 A Yes, that is correct.

17 Q And that is a sentence that you and your
18 coinventors drafted for submission to the Patent Office.

19 A Yes, that is correct.

20 Q Now, let me ask you this: Can you and I agree that
21 a processor can perform out-of-order execution without
22 practicing the '752 invention you've described?

23 A Yes, we can.

24 Q And can we agree that a processor can perform some
25 form of speculative execution without practicing the

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1 '752 patent?

2 A It can perform control speculation, data
3 speculation, and others without performing the '752
4 patent, yes.

5 Q And it could perform data dependence speculation
6 without using the patent; correct?

7 A Yes, that is correct.

8 Q Now, I want to go to the question of who did what
9 work on the patent and I think you told me that -- let
10 me ask this. Withdrawn.

11 Was Dr. Moshovos the lead author on the March 1996
12 technical report that you discussed with Mr. Frischling?

13 A Yes, that is correct.

14 Q Now, is it true that he was the person who was
15 first tasked with drafting the patent application?

16 A I don't -- I can't recall at this point.

17 Q Well, let me turn you to tab 9 in your notebook you
18 have before you.

19 A Yes.

20 Q And I'm going to --

21 A This is Exhibit 22?

22 Q It's exhibit -- it's a document that has a
23 Deposition Exhibit 26, and I'm not going to put it on
24 the screen.

25 A Well, sorry. Tab 9 has Exhibit 22 --
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1 THE COURT: It's marked on the back Exhibit 22
2 and I believe that is the exhibit for the case, but it's
3 not in evidence, and for right now just want to make
4 sure you're looking at the right document, which is tab
5 9. And as you say, on the front of the document it
6 reads Exhibit 22. So we're on the same page.

7 And you may ask your next question.

8 BY MR. LEE:

9 Q Dr. Sohi, does this document refresh your
10 recollection that Dr. Moshovos in August of 1996
11 actually took the first pass at drafting the patent
12 application?

13 A What I'd say is this --

14 THE COURT: You don't need to read it. The
15 question is whether it refreshes your memory; whether
16 the statements there --

17 THE WITNESS: Okay.

18 THE COURT: -- refresh your memory as to
19 whether he did the first cut at it. It's not asking you
20 to read it or to adopt it, it's just simply does it
21 refresh your recollection as to what happened.

22 THE WITNESS: As regards to his previous --

23 THE COURT: Yes, the previous question as to
24 whether now Dr. Moshovos was the one who did the first
25 draft of the application.

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1 THE WITNESS: No. I'm sorry.

2 BY MR. LEE:

3 Q Doesn't refresh your recollection?

4 A Doesn't.

5 Q Okay. Let's go to a different topic. Turn, if you
6 would, in your notebook to tab 10, which is DX 1698. Do
7 you have that before you?

8 A Yes.

9 Q This is an email from Dr. Moshovos to someone named
10 Mr. Chrysos, but copied to you. Do you see that?

11 A Yes, I do.

12 Q And this is an email that was copied to you on
13 March 26, 1996, from Dr. Moshovos; correct?

14 A Yes, it is.

15 MR. LEE: We offer it, Your Honor.

16 THE COURT: It is admitted.

17 BY MR. LEE:

18 Q Let me -- well, just to level set us, you'll see at
19 the beginning that it's Dr. Moshovos to Mr. Chrysos but
20 copied to you; correct?

21 A That is correct.

22 Q And if I turn you to the second page, I want to
23 focus you on one paragraph. The jury will have the
24 entire document for their deliberations. I want to
25 focus you on the paragraph that begins "I fully respect
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1 that DEC, and later IBM, identified the same problem
2 earlier than we did."

3 Do you see that?

4 A I see that.

5 Q "Nevertheless our work is completely independent."

6 Do you see that?

7 A I see that.

8 Q Now, do you agree with him that DEC, and later IBM,
9 had identified the same problem earlier than you had?

10 A No, I don't.

11 Q Okay. And is there any email or document back to
12 Dr. Moshovos from you that said no, that's wrong. They
13 didn't identify it earlier than we did?

14 A I don't think so.

15 Q Is there any document from either of the other two
16 colleagues, Mr. Vijaykumar or Mr. Breach, that says no,
17 DEC and IBM didn't identify it first?

18 A Well, for one, they're not listed on this email, so
19 I'm not sure they've seen this email. I'm not aware of
20 any.

21 Q So we're very clear on what the problem was that he
22 was referring to, I'm going to take you back up to the
23 paragraph immediately before and you see where the
24 sentence begins "The first public description of the
25 problem (i.e, impact of mis-speculation penalty on

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1 performance) and of possible solutions was in 1996 UW CS
2 TR-1318."

3 A Yes.

4 Q All right. So the problem he's referring to is the
5 impact of mis-speculation penalty on performance;
6 correct?

7 A That is correct.

8 Q And he is saying that DEC and IBM had identified it
9 first, that problem?

10 A Well, I don't know. Maybe.

11 Q You know that the DEC work he's referring to is the
12 work of Simon Steely?

13 A That is correct.

14 Q You know the work at IBM he is referring to is the
15 work of Dr. Hesson?

16 A That is correct.

17 Q Now, Dr. Sohi, turn, if you would, to tab number 11
18 and I want to bring you to another email.

19 A Yes.

20 Q All right. Now, let me ask you this question:
21 Isn't it true that Dr. Vijaykumar thought that others
22 had actually showed that load-store violations are rare
23 with a dependency predictor?

24 A Dr. who?

25 MR. FRISCHLING: Objection. Hearsay.
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1 THE COURT: I'm going to sustain the objection.
2 You have to rephrase.

3 MR. LEE: Fair enough, Your Honor.

4 BY MR. LEE:

5 Q Isn't it true that Dr. Vijay -- Dr. Vijaykumar is
6 one of your coinventors; correct?

7 A That is correct.

8 Q He has a substantial interest in this case;
9 correct?

10 A That is correct.

11 Q As does Dr. Moshovos; correct?

12 A Correct.

13 Q As does Dr. Breach; correct?

14 A Correct.

15 Q And isn't it true that Dr. Vijaykumar told you in
16 2003 that others, not U.W. scientists, but others had
17 showed that store-load violations are rare with a
18 dependence predictor?

19 MR. FRISCHLING: Objection.

20 THE COURT: Same objection and same ruling.

21 MR. LEE: Your Honor, I'm just asking him
22 whether he told him. Whether he said it or didn't say
23 it --

24 THE COURT: Let's have a brief sidebar.

25 (Discussion at sidebar at 5:30 p.m.)
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1 THE COURT: Let's just get on the record. It's
2 being offered for the truth of the matter asserted.
3 It's hearsay. I don't understand. The fact that you're
4 asking him doesn't change it.

5 MR. LEE: It's a statement by one of the
6 inventors.

7 THE COURT: But that doesn't make it WARF's
8 statement, which is the only way you get it in as a
9 statement of a party opponent. If I'm missing
10 something, that's fine. But let's do this: We're going
11 to have to take a break. How much more have you got in
12 terms of your --

13 MR. LEE: I was going to stop right after this
14 because I've got another 15 or 20 minutes.

15 THE COURT: 15 or 20 minutes, all right. You
16 weren't going to stop right after this. The Court will
17 decide when we stop.

18 MR. LEE: Okay.

19 THE COURT: And if I feel as though it would be
20 efficient to complete it, then that's what we'll do. If
21 you only have 10 to 15 minutes, I may check with this
22 jury and see if we can complete it. How much redirect
23 would you have?

24 MR. FRISCHLING: Probably another 20 minutes or
25 so.

1 THE COURT: All right. Then we will break and
2 we'll discuss this at the break. But you understand the
3 Court's concern?

4 MR. LEE: Yes.

5 THE COURT: Step back.

6 (End of sidebar discussion at 5:30 p.m.)

7 THE COURT: Because it's 5:30 and because I
8 said we would break at 5:30, we will break now.
9 Unfortunately that means, Dr. Sohi, you will need to
10 come back tomorrow morning and I apologize for that.
11 But we will take our break now.

12 I would ask that you be back and ready to go at
13 8:30 a.m. and we will begin the second day of trial at
14 that time. I would urge you, whether you're discussing
15 with yourself -- chances are you just want to leave, so
16 that probably won't happen. But in terms of discussing
17 with others tonight, in terms of doing any outside
18 examination of anything, don't do it. It's not fair.
19 It's not what you committed to do. Wait until tomorrow
20 morning at 8:30 and you'll learn more information.
21 Probably more than you care to at the end of the day.
22 Don't discuss it with anyone, even your spouse or others
23 that you're close to, other than to tell them that the
24 building is an odd Harvestore blue on the outside and
25 it's pretty oddly shaped. You can describe the

1 architecture. You can describe anything else. But
2 don't discuss the -- anything you've learned in the
3 courtroom today. It will ensure that you're considering
4 what you should when it come times to deliberation.

5 Thank you, all, and we will see you at 8:30
6 tomorrow morning.

7 All rise, please.

8 (Jury excused from courtroom at 5:31 p.m.)

9 THE COURT: Keep in mind that because you're in
10 the midst of your testimony, you're not to talk with
11 either side or anyone else about your testimony. Just
12 be back in that seat at 8:30 tomorrow morning.

13 THE WITNESS: Okay. Thank you.

14 THE COURT: Thank you very much.

15 THE WITNESS: No problem.

16 (Witness excused.)

17 THE COURT: Feel free to step down on your own.
18 Why don't the parties be seated. If you want to revisit
19 the question of hearsay, I'm happy to take it now. I'm
20 not aware of case law that indicates that simply because
21 someone was an inventor of the patent that their
22 statements are statements of a party opponent. If you
23 have some authority, I'm happy to look at it. But I'm
24 not aware of it.

25 MR. LEE: I don't have it right at hand, but --

1 THE COURT: Said another way, you can either
2 provide me with that authority before 8:30 tomorrow
3 morning or you can provide me with some reason in which
4 this is not offered for the truth of the matter
5 asserted, but that seems like that's exactly what you're
6 offering it for.

7 MR. LEE: Fair enough. And Your Honor, the
8 only thing I was going to add at sidebar is I think it's
9 not that he's -- just not that he's an inventor, but he
10 has a 5 percent interest in the case. And that makes it
11 a little bit different. A statement by someone with a 5
12 percent interest in the case ought to be -- that come in
13 against the party. That's the difference.

14 THE COURT: Yeah, and I don't necessarily
15 disagree with you. That seems like a reasonable
16 distinction and I don't know if you want to draw any
17 distinction there. But he's a participant in the
18 outcome of the case, as is the individual Mr. Moshovos
19 who is being quoted back to Professor Sohi.

20 MR. FRISCHLING: Well, Your Honor, at that
21 point neither of them had an interest because the patent
22 application hadn't been filed. So it's not a question
23 of them acting on behalf -- even indirectly on behalf of
24 WARF --

25 THE COURT: Well, you can both give me whatever

1 authority you have by 8:00 a.m. tomorrow morning. You
2 have very able people who can provide that. I will look
3 at the issue myself. I'm inclined -- the reality is
4 that they probably are aware there's a potential
5 financial benefit to them. Whether that makes them a
6 WARF agent for purposes of hearsay I admit is an open
7 question. So I'm not sure -- I suppose I could let it
8 in as -- under the catch-all exception as having an
9 indicia of truth or reliability, but I will think about
10 that. The parties can advise me if they have any
11 further guidance.

12 Was there anything more with respect to this
13 witness?

14 MR. LEE: No, Your Honor. Not for Apple, Your
15 Honor.

16 THE COURT: Then at this time I'd like to take
17 up the objections by WARF to Apple's exhibits. And
18 perhaps someone can advise me of where we stand with
19 respect to those objections in light of the Court's
20 ruling as to Webb. I'll hear from -- fine, either side
21 can.

22 MR. MARCUS: Sure. David Marcus for Apple. We
23 conferred during the break with counsel for WARF and I
24 think we thought that we could talk to them and discuss
25 the ruling and its impacts on the exhibits and get back

1 to the Court first thing in the morning.

2 THE COURT: All right. Why don't we plan on
3 meeting at 8 a.m. then and I'll take it up at that time
4 if there's any further rulings. If you discuss it and
5 you determine that you've reached a resolution as to any
6 of the remaining pending exhibits, if you just -- you
7 can docket a joint statement and I will see that and
8 know that I don't need to pay any more attention to it.
9 If not, we'll take it up at 8 a.m.

10 All right. It sounds like the parties have reached
11 agreement on how Apple's admissions or responses to
12 admissions will come into evidence; is that right? Or
13 is that motion by WARF still pending?

14 MR. SHEASBY: Your Honor, there is one
15 outstanding issue. There are a few interrogatory
16 responses -- excuse me, Requests for Admission responses
17 in which what Apple did is, after admitting, if it ended
18 additional argumentative language to the Request for
19 Admission. This is --

20 THE COURT: Can you give me an example? Maybe
21 just put it on the screen using the document indicator.

22 MR. SHEASBY: Sure. Why don't we use Docket
23 325-39.

24 THE COURT: I have that in front of me too, or
25 I will momentarily. If you can call it up, that's

1 great. Otherwise I can pull it up here.

2 MR. SHEASBY: I can put it on the ELMO too.

3 THE COURT: That would be ideal. Let me just
4 do that. I'm heartened by the fact that some people
5 refer to it as the ELMO. Technically it's no longer an
6 ELMO, it's now just a document imager. But I grew up
7 calling it that, so I know what you mean.

8 Which of the responses do you need?

9 MR. SHEASBY: So we're looking at No. 28. And
10 if you see what they did is it's a very --

11 THE COURT: Just give me a moment to read it.
12 I agree. I think the only thing that should appear in
13 the jury is the request that you admit that in the
14 accused processors there are instances when
15 mis-speculations occur and then it should read Apple
16 admits that mis-speculation -- or you could just say
17 admitted. That should be abbreviated. I don't know why
18 there would be any dispute as to your right to modify
19 what's being asked. You're admitting the requests.

20 So unless someone wants to make an argument to the
21 contrary, that should be modified to show it was
22 admitted. All right?

23 MR. MARCUS: Very well, Your Honor.

24 THE COURT: Does that amplify any further
25 disputes in this area?

1 MR. SHEASBY: There are two others and I'm
2 assuming --

3 THE COURT: Why don't you confer tonight. If
4 you reach a disagreement, you can advise me in the
5 morning. But that's a classic example of where
6 references to general objections or amplification, which
7 is -- which comes after an admission to the fact
8 asserted, is just not appropriate.

9 MR. MARCUS: Understood, Your Honor. Thank
10 you.

11 THE COURT: Very good. I believe then that's
12 all that the Court intended to review. I'll hear if
13 there are issues. I do want to talk about where we are
14 in terms of timing, but any other issues that WARF would
15 benefit the Court ruling on at this time?

16 MR. CHU: No, Your Honor.

17 THE COURT: All right. Anything more for
18 Apple?

19 MR. LEE: No, Your Honor.

20 THE COURT: Let me just ask WARF where are you
21 in terms of your overall predictions of completion in
22 two days?

23 MR. CHU: I think we're still on track, Your
24 Honor.

25 THE COURT: All right. So roughly you'd expect

1 you'd complete your case-in-chief by middle of the day
2 on Wednesday, if not Tuesday.

3 MR. CHU: I think Your Honor had asked us
4 before. Without cross, we said about a day-and-a-half
5 and so I think it depends on cross.

6 THE COURT: Assuming that cross remains on its
7 course.

8 MR. CHU: Yes.

9 THE COURT: You're roughly on track.

10 MR. CHU: Right.

11 THE COURT: I'm not going to hold anyone to an
12 exact time. The reason I ask is just that I've given
13 some leeway early on, particularly with respect to
14 cross. I didn't give any leeway with respect to the
15 first witness because I don't know that Mr. Gulbrandsen,
16 who I respect very much, has much to say about the
17 issues of liability in this case. But aside from that,
18 I've tried to give you leeway to lay your themes and to
19 repeat some of those in cross. I'm not going to do that
20 to the point of redundancy.

21 So while I'll continue to give you leeway with the
22 first few witnesses, I expect the parties to tighten up
23 some of the presentations on matters not in dispute as
24 we proceed through trial. But other than that, I
25 continue to be appreciative of both sides' efforts and

1 encourage that as we proceed.

2 And I will see you at 8 a.m. tomorrow morning;
3 doesn't have to be all the lawyers, just those dealing
4 with the two issues that need to be dealt with. We will
5 begin the trial again at 8:30 -- I should say the trial
6 before the jury at 8:30.

7 Thank you, all. You're free to move about the
8 courtroom and we are adjourned for the day.

9 MR. CHU: Thank you, Your Honor.

10 MR. SHEASBY: Thank you, Your Honor.

11 (Proceedings concluded at 5:40 p.m.)
12

13 * * * * *

14 I, LYNETTE SWENSON, Certified Realtime and Merit
15 Reporter in and for the State of Wisconsin, certify that
16 the foregoing is a true and accurate record of the
17 proceedings held on the 5th day of October 2015 before
18 the Honorable William D. Conley, Chief Judge for the
19 Western District of Wisconsin, in my presence and
20 reduced to writing in accordance with my stenographic
21 notes made at said time and place.
22 Dated this 23rd day of October 2015.

20 /s/_____
21 Lynette Swenson, RMR, CRR
22 Federal Court Reporter

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